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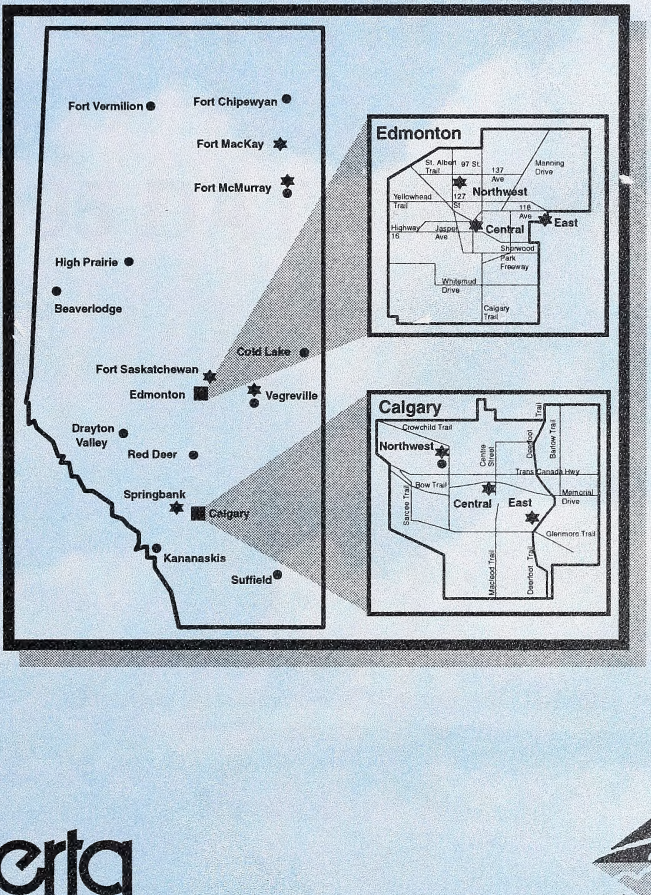
Air Quality Monitoring in Alberta

DATA REPORT

1995



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AIR QUALITY MONITORING IN ALBERTA

1995 DATA REPORT

Prepared by:

R.H. Myrick

Air Issues and Monitoring Branch
Chemicals Assessment and Management Division
Alberta Environmental Protection

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This report is one in a series of air quality annual reports produced by Alberta Environmental Protection for 1995. The following air quality annual reports are available for 1995:

Air Quality Monitoring in Alberta: 1995 Summary Report;
Air Quality Monitoring in Alberta: 1995 Detailed Report, and
Air Quality Monitoring in Alberta: 1995 Data Report.

For copies of these reports or for more information contact:

Air Issues and Monitoring Branch
Alberta Environmental Protection
6th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta
T5K 2J6
Phone (403) 427-5893

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LIST OF ABBREVIATIONS

Monitoring Locations

EDMU	- Edmonton central (downtown) monitoring unit
ERMU	- Edmonton northwest (residential) monitoring unit
EIMU	- Edmonton east (industrial) monitoring unit
CDMU	- Calgary central (downtown) monitoring unit
CRMU	- Calgary northwest (residential) monitoring unit
CIMU	- Calgary east (industrial) monitoring unit
FTSK	- Fort Saskatchewan monitoring unit
FMMU	- Fort McMurray monitoring unit
FRMU	- Fort MacKay monitoring unit
SPBK	- Springbank monitoring unit (Springbank Airport)
RLPK	- Royal Park monitoring unit (Vegreville)

Pollutant Parameters

IQUA	- Index of the Quality of the Air
NH_3	- ammonia
CO	- carbon monoxide
CO_2	- carbon dioxide
H_2S	- hydrogen sulphide
NO_2	- nitrogen dioxide
NO	- nitric oxide
NO_x	- oxides of nitrogen
O_3	- ozone
PM_{10}	- inhalable particulates
SO_2	- sulphur dioxide
THC	- total hydrocarbons
TSP	- total suspended particulates
BaP	- benzo (a) pyrene

Units of Measurement

ppm	- parts per million by volume
ppb	- parts per billion by volume
$\mu g/m^3$	- micrograms per cubic meter
$\mu g/1000\ m^3$	- micrograms per 1000 cubic meters
H^+ kg/ha	- kilograms per hectare (hydrogen ion equivalent)
kg/ha	- kilograms per hectare
$mg/day/100^2$	- milligrams per day per 100 square centimeters
$mg/100^2/30$ days	- milligrams per 100 square centimeters per 30 days
$\mu g/100^2/30$ days	- micrograms per 100 square centimeters per 30 days
km/hr	- kilometres per hour
mm	- millimetres
ml	- millilitres
COH units	- coefficient of haze units measured as the reduction of light transmission per 1000 linear feet of air sample

INTRODUCTION

This document is prepared as an appendix to the report entitled "Air Quality Monitoring in Alberta: 1995 Detailed Report". Data summaries are presented for continuous, intermittent, static and precipitation quality monitoring networks operated by Alberta Environmental Protection.

Continuous Air Quality Monitoring

Air pollutants which are monitored on a continuous basis include ammonia, carbon monoxide, carbon dioxide, dust and smoke (the coefficient of haze), hydrogen sulphide, nitrogen dioxide, nitric oxide, total oxides of nitrogen, ozone, inhalable particulates, sulphur dioxide and total hydrocarbons. Concentrations of these pollutants are reported once every hour, 24 hours a day, 365 days a year. In the continuous air quality data section of this report, the Index of the Quality of the Air, wind direction and speed, and concentrations of individual air pollutants are summarized. Individual air pollutants have been analyzed, on an annual, seasonal and monthly basis, to resolve simple statistics which describe the data. Seasons are defined as winter (December, January, February), spring (March, April, May), summer (June, July, August) and autumn (September, October, November) (Trenberth 1983). The subsequent pages contain the following information for each continuously monitored air pollutant: (1) percentiles (which indicate the percentage of observations above and below a specific percentile; i.e., 75% means that 75% of the observations are below or equal to the value indicated and 25% of the observations are above the value indicated); (2) simple statistics such as arithmetic and geometric means, arithmetic standard deviations, range, and the number of observations; and (3) the percentage of time that ambient parameter concentrations exceeded the guidelines. Wind direction frequency distributions are generated for times when the guidelines were exceeded. Annual average pollutant concentrations of historical data are also included. Statistical procedures used in this analysis are detailed in numerous statistics publications (refer to Zar (1974) and Gilbert (1987)).

Data below the limit of detection (LOD) are estimated by the method described in Gilliom and Helsel (1986). It is assumed that the air quality data above the LOD follows a lognormal distribution. The data below the LOD are fitted to this lognormal distribution by the method of least squares. Initially, normal scores are calculated for all data points above the LOD by the following equations:

$$z = F(y)^{-1}(r/n + 1); \text{ and}$$

$$F(y) = r/(n + 1);$$

where F(y) is the cumulative frequency function for the standardized normal distribution, n is the number of observations, r is the order of the observation from the LOD to n and z is the normal score. A least squares regression of concentration on normal scores is then applied. The data below the LOD may then be estimated by the linear regression equation. Percentiles and statistics are calculated from this modified distribution.

Intermittent Air Quality Monitoring

Intermittent air quality monitoring refers to air pollutants which are monitored as a 24-hour accumulated loading, once every sixth day, according to the National Air Pollution Surveillance (NAPS) system. Suspended particulates, benzo (a) pyrene, sulphates and nitrates are monitored according to this system. Minimums, geometric means and maximum values are summarized by month for intermittent monitoring parameters. Annual average values of historical data are also provided.

Static Air Quality Monitoring

In 1995, static air quality monitoring was conducted from January to June, inclusive, at 31 networks throughout the province. Each network consisted of at least one monitoring station. Static monitoring is the measurement of total accumulated loadings of pollutants on a one- and three-month schedule. Parameters monitored on a static basis included total sulphation, hydrogen sulphide, dustfall, calcium and fluorides. Static monitoring data are presented as monthly or tri-monthly average loadings for each location. The number of stations at each location is also indicated.

Precipitation Quality Monitoring

Rain and snow samples were collected on a weekly basis at 12 precipitation quality monitoring stations in 1995. Samples were also collected on a daily and monthly basis at the Vegreville (Royal Park) station and on a daily basis at the High Prairie station. Chemical analysis was conducted on these samples to obtain pH as well as other compounds contained in precipitation. Anion and cation wet deposition rates, and the calculated effective acidity deposition rates are presented for monthly and weekly precipitation samples. Annual pH values were calculated using volume weighted average hydrogen ion concentrations from weekly and monthly samples. Annual anion, cation and effective acidity deposition rates were also calculated simply as the sum of the monthly and weekly values. Anion and cation deposition rates were calculated using the following equation:

$$\text{wet deposition(kg/ha)} = \frac{\text{concentration(mg/l)} \times \text{precipitation depth(mm)}}{100}$$

where precipitation depth was calculated using the volume of precipitation in the collector.

Effective acidity (EA) is an approach which has been developed to estimate the degree of acidification which soil would experience as a result of atmospheric inputs. This approach takes into account: (1) direct deposition of acids onto the soil; and (2) the chemical, biological and physical processes which take place within the soil as a result of acid deposition. Effective acidity is described by the equation:

$$EA = [H^+] + 1.15x[NH_4^+] - 0.7x[NO_3^-]$$

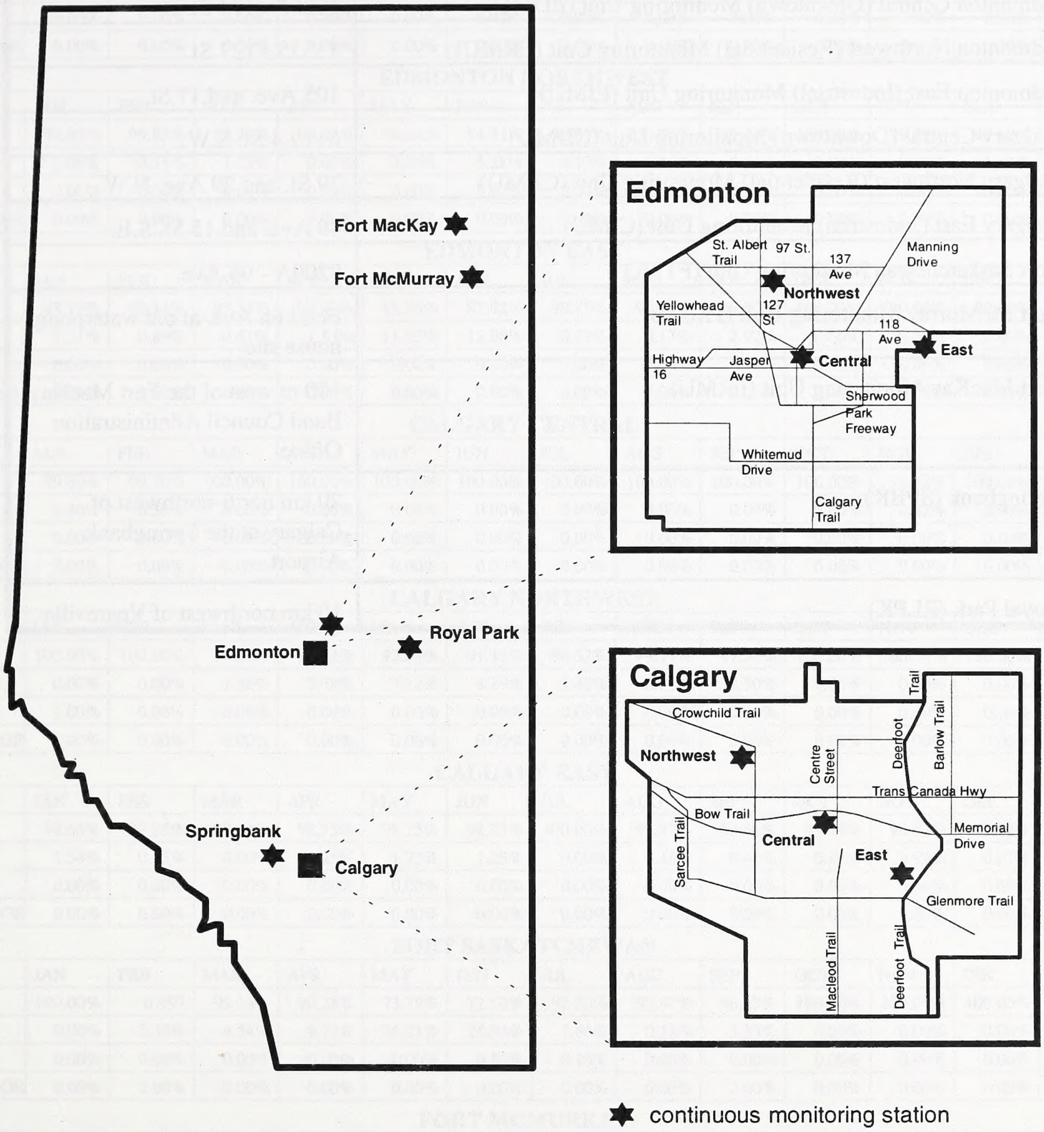
where $[H^+]$, $[NH_4^+]$ and $[NO_3^-]$ are concentrations of hydrogen ions, ammonia ions and nitrate ions, respectively, expressed as molar equivalents (Coote et al, 1981). Effective acidity is presented as deposition in kilomoles of hydrogen ion equivalents per hectare.

Potential acid input (PA) is an approach that takes into account all sulphur and inorganic nitrogen that is deposited by wet and dry deposition processes (Lovblad et al., 1992; Bull, 1992). The non-marine base cation deposition is subtracted from the equation to get the net acid input into the ecosystem. In precipitation, potential acid input is calculated using the following equation:

$$PA = [SO_4^{2-}] + [NO_3^-] + [NH_4^+] - [Ca^{2+}] - [Mg^{2+}] - [K^+]$$

where wet deposition of sulphate, nitrate, ammonium, calcium, magnesium and potassium are calculated in kilomoles of hydrogen ions equivalents per hectare.

LOCATION OF CONTINUOUS AIR QUALITY MONITORING STATIONS



Location of continuous monitoring stations.

Station Name	Station Location
Edmonton Central (Downtown) Monitoring Unit (EDMU)	10255 - 104 St.
Edmonton Northwest (Residential) Monitoring Unit (ERMU)	13335 - 127 St.
Edmonton East (Industrial) Monitoring Unit (EIMU)	105 Ave. and 17 St.
Calgary Central (Downtown) Monitoring Unit (CDMU)	611 - 4 St. S.W.
Calgary Northwest (Residential) Monitoring Unit (CRMU)	39 St. and 29 Ave. N.W.
Calgary East (Industrial) Monitoring Unit (CIMU)	49 Ave. and 15 St. S.E.
Fort Saskatchewan Monitoring Unit (FTSK)	9209A - 96 Ave.
Fort McMurray Monitoring Unit (FMMU)	Franklin Ave. at old waterpump house site
Fort MacKay Monitoring Unit (FRMU)	100 m west of the Fort MacKay Band Council Administration Office
Springbank (SPBK)	20 km north-northwest of Calgary at the Springbank Airport
Royal Park (RLPK)	10 km northwest of Vegreville

INDEX OF THE QUALITY OF THE AIR IN 1995 (% of time in each category)

EDMONTON CENTRAL

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	99.87%	100.00%	100.00%	100.00%	98.79%	96.53%	100.00%	100.00%	99.86%	100.00%	100.00%	100.00%	99.59%
FAIR	0.13%	0.00%	0.00%	0.00%	1.21%	3.06%	0.00%	0.00%	0.14%	0.00%	0.00%	0.00%	0.38%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

EDMONTON NORTHWEST

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	98.92%	99.85%	98.25%	100.00%	96.64%	94.31%	99.87%	100.00%	99.44%	100.00%	99.72%	98.92%	98.82%
FAIR	1.08%	0.15%	1.75%	0.00%	3.36%	5.28%	0.13%	0.00%	0.56%	0.00%	0.28%	1.08%	1.14%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

EDMONTON EAST

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	98.79%	99.11%	99.33%	98.47%	88.98%	87.92%	99.73%	99.87%	96.94%	100.00%	100.00%	99.60%	97.39%
FAIR	1.21%	0.89%	0.67%	1.53%	11.02%	12.08%	0.27%	0.13%	2.92%	0.00%	0.00%	0.40%	2.59%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.14%	0.00%	0.00%	0.00%	0.01%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

CALGARY CENTRAL

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	99.60%	99.70%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.58%	100.00%	99.91%
FAIR	0.40%	0.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.42%	0.00%	0.09%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

CALGARY NORTHWEST

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	100.00%	100.00%	98.12%	92.22%	92.88%	91.11%	98.52%	99.19%	97.50%	100.00%	100.00%	100.00%	97.65%
FAIR	0.00%	0.00%	1.88%	7.78%	7.12%	8.89%	1.48%	0.81%	2.50%	0.00%	0.00%	0.00%	2.35%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

CALGARY EAST

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	98.66%	99.85%	100.00%	98.75%	98.25%	98.75%	100.00%	99.87%	99.58%	99.19%	96.53%	99.33%	99.08%
FAIR	1.34%	0.15%	0.00%	1.25%	1.75%	1.25%	0.00%	0.13%	0.42%	0.81%	2.92%	0.67%	0.88%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.56%	0.00%	0.05%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

FORT SASKATCHEWAN

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	100.00%	0.997	95.16%	90.28%	73.79%	72.50%	92.20%	99.87%	96.67%	100.00%	100.00%	100.00%	93.35%
FAIR	0.00%	0.30%	4.84%	9.72%	26.21%	26.94%	7.66%	0.13%	3.33%	0.00%	0.00%	0.00%	6.60%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.56%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

FORT MCMURRAY

IQUA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
GOOD	100.00%	100.00%	99.33%	99.58%	92.74%	92.08%	99.73%	100.00%	99.72%	100.00%	100.00%	100.00%	98.69%
FAIR	0.00%	0.00%	0.67%	0.42%	0.0726	7.92%	0.27%	0.00%	0.28%	0.00%	0.00%	0.00%	1.31%
POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
VERY POOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

INDEX OF THE QUALITY OF THE AIR IN 1995
(% of time each pollutant contributed to Fair, Poor and Very Poor air quality readings)

EDMONTON CENTRAL

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	0.00%	*	*	*	0.00%	0.00%	*	*	0.00%	*	*	*	0.00%
COH	0.00%	*	*	*	0.00%	0.00%	*	*	100.00%	*	*	*	25.00%
NO2	100.00%	*	*	*	0.00%	0.00%	*	*	0.00%	*	*	*	25.00%
O3	0.00%	*	*	*	100.00%	100.00%	*	*	0.00%	*	*	*	50.00%

EDMONTON NORTHWEST

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	0.00%	0.00%	0.00%	*	0.00%	0.00%	0.00%	*	0.00%	*	0.00%	0.00%	0.00%
COH	100.00%	100.00%	15.38%	*	0.00%	0.00%	0.00%	*	75.00%	*	100.00%	100.00%	54.49%
NO2	0.00%	0.00%	0.00%	*	0.00%	0.00%	0.00%	*	0.00%	*	0.00%	0.00%	0.00%
O3	0.00%	0.00%	84.62%	*	100.00%	100.00%	100.00%	*	25.00%	*	0.00%	0.00%	45.51%

EDMONTON EAST

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	0.00%	0.00%
COH	100.00%	83.33%	0.00%	0.00%	0.00%	1.15%	0.00%	0.00%	40.91%	*	*	100.00%	32.54%
NO2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	0.00%	0.00%
O3	0.00%	16.67%	100.00%	100.00%	100.00%	98.85%	100.00%	100.00%	59.09%	*	*	0.00%	67.46%
SO2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	0.00%	0.00%

CALGARY CENTRAL

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	33.33%	0.00%	*	*	*	*	*	*	*	*	0.00%	*	11.11%
COH	66.67%	100.00%	*	*	*	*	*	*	*	*	100.00%	*	88.89%
NO2	0.00%	0.00%	*	*	*	*	*	*	*	*	0.00%	*	0.00%
O3	0.00%	0.00%	*	*	*	*	*	*	*	*	0.00%	*	0.00%

CALGARY NORTHWEST

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
COH	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
NO2	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
O3	*	*	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	*	*	*	100.00%

CALGARY EAST

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	0.00%	0.00%	*	0.00%	0.00%	0.00%	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
COH	100.00%	100.00%	*	0.00%	0.00%	0.00%	*	0.00%	0.00%	100.00%	100.00%	80.00%	48.00%
NO2	0.00%	0.00%	*	0.00%	0.00%	0.00%	*	0.00%	0.00%	0.00%	0.00%	20.00%	2.00%
O3	0.00%	0.00%	*	100.00%	100.00%	100.00%	*	100.00%	100.00%	0.00%	0.00%	0.00%	50.00%
SO2	0.00%	0.00%	*	0.00%	0.00%	0.00%	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

FORT SASKATCHEWAN

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
COH	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
NO2	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%
O3	*	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	*	*	*	100.00%
SO2	*	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	*	*	*	0.00%

FORT MCMURRAY

Pollutant	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
CO	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	*	0.00%	*	*	*	0.00%
COH	*	*	0.00%	0.00%	0.00%	1.75%	0.00%	*	0.00%	*	*	*	0.29%
NO2	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	*	0.00%	*	*	*	0.00%
O3	*	*	100.00%	100.00%	100.00%	98.25%	100.00%	*	100.00%	*	*	*	99.71%
SO2	*	*	0.00%	0.00%	0.00%	0.00%	0.00%	*	0.00%	*	*	*	0.00%

* Fair, Poor or Very Poor air quality not reported this month.

```
                         Wind Summary for 1995
                 Edmonton Northwest Monitoring Station

||------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                  ||
||                        Wind Speed (km/h)                         ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        71   103    74    18     4     1     0     0     0   271  ||
||    NNE      46    82    75    22    11     1     0     0     0   237  ||
||    NE       61   211   156    37     9     3     0     0     0   477  ||
||    ENE      61   212   127    38    10     4     0     0     0   452  ||
||    E        47   211   123    52    13     4     0     0     0   450  ||
||    ESE      53   173   155    96    15     9     0     0     0   501  ||
||    SE       47   151   211    88    31    13     1     0     0   542  ||
||    SSE      59   188   204    73    18     0     0     0     0   542  ||
||    S        78   428   240    48     7     0     0     0     0   801  ||
||    SSW      94   485    82    17     1     0     0     0     0   679  ||
||    SW       69   311    51     2     0     0     0     0     0   433  ||
||    WSW      61   267   131     6     2     0     0     0     0   467  ||
||    W        84   380   285    65    21    13     2     0     0   850  ||
||    WNW      64   282   273   116    54    29     2     0     0   820  ||
||    NW       74   260   225    86    26    10     0     0     0   681  ||
||    NNW      78   144   135    64     5     1     0     0     0   427  ||
||  TOTAL    1047  3888  2547   828   227    88     5     0     0  8630  ||
||                                                                  ||
||  CALM =    127 hours                                             ||
||  MISSING DATA =      3 hours                                     ||
||------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                  ||
||                        Wind Speed (km/h)                         ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        .8   1.2    .8    .2    .0    .0    .0    .0    .0   3.1  ||
||    NNE      .5    .9    .9    .3    .1    .0    .0    .0    .0   2.7  ||
||    NE       .7   2.4   1.8    .4    .1    .0    .0    .0    .0   5.4  ||
||    ENE      .7   2.4   1.4    .4    .1    .0    .0    .0    .0   5.2  ||
||    E        .5   2.4   1.4    .6    .1    .0    .0    .0    .0   5.1  ||
||    ESE      .6   2.0   1.8   1.1    .2    .1    .0    .0    .0   5.7  ||
||    SE       .5   1.7   2.4   1.0    .4    .1    .0    .0    .0   6.2  ||
||    SSE      .7   2.1   2.3    .8    .2    .0    .0    .0    .0   6.2  ||
||    S        .9   4.9   2.7    .5    .1    .0    .0    .0    .0   9.1  ||
||    SSW     1.1   5.5    .9    .2    .0    .0    .0    .0    .0   7.8  ||
||    SW       .8   3.6    .6    .0    .0    .0    .0    .0    .0   4.9  ||
||    WSW      .7   3.0   1.5    .1    .0    .0    .0    .0    .0   5.3  ||
||    W       1.0   4.3   3.3    .7    .2    .1    .0    .0    .0   9.7  ||
||    WNW      .7   3.2   3.1   1.3    .6    .3    .0    .0    .0   9.4  ||
||    NW       .8   3.0   2.6   1.0    .3    .1    .0    .0    .0   7.8  ||
||    NNW      .9   1.6   1.5    .7    .1    .0    .0    .0    .0   4.9  ||
||  TOTAL    12.0  44.4  29.1   9.5   2.6   1.0    .1    .0    .0  98.5  ||
||                                                                  ||
||  CALM =  1.45%                                                   ||
||  MISSING DATA =    .03%                                          ||
||------------------------------------------------------------------||
                      Wind Summary for 1995
                  Edmonton East Monitoring Station

||--------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                    ||
||                         Wind Speed (km/h)                          ||
||   Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40    >40 TOTAL  ||
||   N       134   158    91    49    21     0     0     0      0   453  ||
||   NNE     118   130    88    51     8     0     0     0      0   395  ||
||   NE      100   145   123    29     7     1     1     0      0   406  ||
||   ENE      87   146   100    52    16    11     5     0      0   417  ||
||   E       102   245   172    89    35    17     4     2      0   666  ||
||   ESE      97   287   273   127    56    18     0     0      0   858  ||
||   SE      137   304   293   146    33    24     5     0      0   942  ||
||   SSE     117   200   186   111    43    17     5     0      0   679  ||
||   S       104   251   181    81    39    13     0     0      0   669  ||
||   SSW     113   268   277    63    14     0     0     0      0   735  ||
||   SW       85   159   128    43    17     4     3     1      0   440  ||
||   WSW      70    90    80    52    26     6     0     0      0   324  ||
||   W        73   112   110    51    17    15     3     1      0   382  ||
||   WNW     107   129   111    77    26    14    18     4      0   486  ||
||   NW      117   104    81    52    26    19     7     2      0   408  ||
||   NNW     104   115    88    51    17     3     2     0      0   380  ||
|| TOTAL    1665  2843  2382  1124   401   162    53    10      0  8640  ||
||                                                                    ||
|| CALM =     36 hours                                                ||
|| MISSING DATA =     84 hours                                        ||
||--------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                    ||
||                         Wind Speed (km/h)                          ||
||   Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40    >40 TOTAL  ||
||   N       1.5   1.8   1.0    .6    .2    .0    .0    .0     .0   5.2  ||
||   NNE     1.3   1.5   1.0    .6    .1    .0    .0    .0     .0   4.5  ||
||   NE      1.1   1.7   1.4    .3    .1    .0    .0    .0     .0   4.6  ||
||   ENE     1.0   1.7   1.1    .6    .2    .1    .1    .0     .0   4.8  ||
||   E       1.2   2.8   2.0   1.0    .4    .2    .0    .0     .0   7.6  ||
||   ESE     1.1   3.3   3.1   1.4    .6    .2    .0    .0     .0   9.8  ||
||   SE      1.6   3.5   3.3   1.7    .4    .3    .1    .0     .0  10.8  ||
||   SSE     1.3   2.3   2.1   1.3    .5    .2    .1    .0     .0   7.8  ||
||   S       1.2   2.9   2.1    .9    .4    .1    .0    .0     .0   7.6  ||
||   SSW     1.3   3.1   3.2    .7    .2    .0    .0    .0     .0   8.4  ||
||   SW      1.0   1.8   1.5    .5    .2    .0    .0    .0     .0   5.0  ||
||   WSW      .8   1.0    .9    .6    .3    .1    .0    .0     .0   3.7  ||
||   W        .8   1.3   1.3    .6    .2    .2    .0    .0     .0   4.4  ||
||   WNW     1.2   1.5   1.3    .9    .3    .2    .2    .0     .0   5.5  ||
||   NW      1.3   1.2    .9    .6    .3    .2    .1    .0     .0   4.7  ||
||   NNW     1.2   1.3   1.0    .6    .2    .0    .0    .0     .0   4.3  ||
|| TOTAL    19.0  32.5  27.2  12.8   4.6   1.8    .6    .1     .0  98.6  ||
||                                                                    ||
|| CALM =    .41%                                                     ||
|| MISSING DATA =    .96%                                             ||
||--------------------------------------------------------------------||
                         Wind Summary for 1995
                  Calgary Northwest Monitoring Station

||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                          Wind Speed (km/h)                        ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      143   177    98    29    13     4     1     0     0   465  ||
||    NNE    246   202    59    15     0     0     0     0     0   522  ||
||    NE     220   181    31     8     1     1     0     0     0   442  ||
||    ENE    153   140    25     3     1     2     0     0     0   324  ||
||    E      179   150    22     1     2     0     0     0     0   354  ||
||    ESE    168   151    27     1     1     1     1     0     0   350  ||
||    SE     270   328    88    15     0     1     0     0     0   702  ||
||    SSE    162   251    87    13     1     0     0     0     0   514  ||
||    S      131    98    40     7     1     1     0     0     0   278  ||
||    SSW     75    46    19     8     2     0     0     0     0   150  ||
||    SW      81    41    17     4     6     1     0     0     0   150  ||
||    WSW    101    92    32    25     7    12     3     0     0   272  ||
||    W      208   199    91    74    26    22     3     0     0   623  ||
||    WNW    452   962   275    52    11     1     0     0     0  1753  ||
||    NW     433   525   156    33     3     4     0     0     0  1154  ||
||    NNW    133   171   123    48    12     4     1     0     0   492  ||
||  TOTAL   3155  3714  1190   336    87    54     9     0     0  8545  ||
||                                                                   ||
||  CALM =    203 hours                                              ||
||  MISSING DATA =    12 hours                                       ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)  ||
||                                                                   ||
||                          Wind Speed (km/h)                        ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      1.6   2.0   1.1    .3    .1    .0    .0    .0    .0   5.3  ||
||    NNE    2.8   2.3    .7    .2    .0    .0    .0    .0    .0   6.0  ||
||    NE     2.5   2.1    .4    .1    .0    .0    .0    .0    .0   5.0  ||
||    ENE    1.7   1.6    .3    .0    .0    .0    .0    .0    .0   3.7  ||
||    E      2.0   1.7    .3    .0    .0    .0    .0    .0    .0   4.0  ||
||    ESE    1.9   1.7    .3    .0    .0    .0    .0    .0    .0   4.0  ||
||    SE     3.1   3.7   1.0    .2    .0    .0    .0    .0    .0   8.0  ||
||    SSE    1.8   2.9   1.0    .1    .0    .0    .0    .0    .0   5.9  ||
||    S      1.5   1.1    .5    .1    .0    .0    .0    .0    .0   3.2  ||
||    SSW     .9    .5    .2    .1    .0    .0    .0    .0    .0   1.7  ||
||    SW      .9    .5    .2    .0    .1    .0    .0    .0    .0   1.7  ||
||    WSW    1.2   1.1    .4    .3    .1    .1    .0    .0    .0   3.1  ||
||    W      2.4   2.3   1.0    .8    .3    .3    .0    .0    .0   7.1  ||
||    WNW    5.2  11.0   3.1    .6    .1    .0    .0    .0    .0  20.0  ||
||    NW     4.9   6.0   1.8    .4    .0    .0    .0    .0    .0  13.2  ||
||    NNW    1.5   2.0   1.4    .5    .1    .0    .0    .0    .0   5.6  ||
||  TOTAL   36.0  42.4  13.6   3.8   1.0    .6    .1    .0    .0  97.5  ||
||                                                                   ||
||  CALM =  2.32%                                                    ||
||  MISSING DATA =    .14%                                           ||
||-------------------------------------------------------------------||
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Wind Summary for 1995

Calgary East Monitoring Station

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||--------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                          Wind Speed (km/h)                           ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       79   196   194    86    32    12     0     0     0   599  ||
||    NNE     77   136    91    32     4     0     0     0     0   340  ||
||    NE      91    93    42     2     0     0     0     0     0   228  ||
||    ENE    112   140    42     3     0     0     0     0     0   297  ||
||    E      187   156    62    16     3     1     0     0     0   425  ||
||    ESE    247   173    97    16     3     0     0     0     0   536  ||
||    SE     296   240   184    45     8     6     0     0     0   779  ||
||    SSE    334   222   151    30    10     2     0     0     0   749  ||
||    S      389   113    44    14     2     0     0     0     0   562  ||
||    SSW    284    37    16     5     1     4     0     0     0   347  ||
||    SW     293    41    26     9    16     3     0     0     0   388  ||
||    WSW    448    63    32    10     7     2     1     0     0   563  ||
||    W      488   187    75    55    24    15     1     0     0   845  ||
||    WNW    234   280   157    55     8     2     0     0     0   736  ||
||    NW     124   219   151    69    23     4     1     0     0   591  ||
||    NNW     89   182   217   136    47    14     6     0     0   691  ||
||  TOTAL   3772  2478  1581   583   188    65     9     0     0  8676  ||
||                                                                      ||
||  CALM =     84 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||--------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                          Wind Speed (km/h)                           ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .9   2.2   2.2   1.0    .4    .1    .0    .0    .0   6.8  ||
||    NNE     .9   1.6   1.0    .4    .0    .0    .0    .0    .0   3.9  ||
||    NE     1.0   1.1    .5    .0    .0    .0    .0    .0    .0   2.6  ||
||    ENE    1.3   1.6    .5    .0    .0    .0    .0    .0    .0   3.4  ||
||    E      2.1   1.8    .7    .2    .0    .0    .0    .0    .0   4.9  ||
||    ESE    2.8   2.0   1.1    .2    .0    .0    .0    .0    .0   6.1  ||
||    SE     3.4   2.7   2.1    .5    .1    .1    .0    .0    .0   8.9  ||
||    SSE    3.8   2.5   1.7    .3    .1    .0    .0    .0    .0   8.6  ||
||    S      4.4   1.3    .5    .2    .0    .0    .0    .0    .0   6.4  ||
||    SSW    3.2    .4    .2    .1    .0    .0    .0    .0    .0   4.0  ||
||    SW     3.3    .5    .3    .1    .2    .0    .0    .0    .0   4.4  ||
||    WSW    5.1    .7    .4    .1    .1    .0    .0    .0    .0   6.4  ||
||    W      5.6   2.1    .9    .6    .3    .2    .0    .0    .0   9.6  ||
||    WNW    2.7   3.2   1.8    .6    .1    .0    .0    .0    .0   8.4  ||
||    NW     1.4   2.5   1.7    .8    .3    .0    .0    .0    .0   6.7  ||
||    NNW    1.0   2.1   2.5   1.6    .5    .2    .1    .0    .0   7.9  ||
||  TOTAL   43.1  28.3  18.0   6.7   2.1    .7    .1    .0    .0  99.0  ||
||                                                                      ||
||  CALM =    .96%                                                      ||
||  MISSING DATA =   .00%                                               ||
||--------------------------------------------------------------------||
                        Wind Summary for 1995
                 Fort Saskatchewan Monitoring Station

||-----------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                  ||
||                         Wind Speed (km/h)                        ||
||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N      155   101    56    30     2     2     1     0     0   347 ||
||    NNE    103    69    47    22     8     2     0     0     0   251 ||
||    NE     152   147   105    47    12     2     0     0     0   465 ||
||    ENE    204   280   117    31    13     4     0     0     0   649 ||
||    E      287   285   152    56    23    10     5     0     0   818 ||
||    ESE    220   204   116    74    33    11     4     0     0   662 ||
||    SE     246   184    77    36    12     1     1     0     0   557 ||
||    SSE    223   174    74    24     2     0     0     0     0   497 ||
||    S      304   287    62    16     0     0     0     0     0   669 ||
||    SSW    362   213    52     7     0     0     0     0     0   634 ||
||    SW     313   261    62    17     3     0     0     0     0   656 ||
||    WSW    162   171   122    18     6    15     1     0     0   495 ||
||    W      160   197   171    70    18     8     0     0     0   624 ||
||    WNW     98   124   111    67    28    13     4     2     0   447 ||
||    NW     138   120   104    74    30     9     3     1     0   479 ||
||    NNW    145    91    36    16    10     2     1     0     0   301 ||
||  TOTAL   3272  2908  1464   605   200    79    20     3     0  8551 ||
||                                                                  ||
||  CALM =    170 hours                                             ||
||  MISSING DATA =    39 hours                                      ||
||-----------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                  ||
||                         Wind Speed (km/h)                        ||
||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N      1.8   1.2    .6    .3    .0    .0    .0    .0    .0   4.0 ||
||    NNE    1.2    .8    .5    .3    .1    .0    .0    .0    .0   2.9 ||
||    NE     1.7   1.7   1.2    .5    .1    .0    .0    .0    .0   5.3 ||
||    ENE    2.3   3.2   1.3    .4    .1    .0    .0    .0    .0   7.4 ||
||    E      3.3   3.3   1.7    .6    .3    .1    .1    .0    .0   9.3 ||
||    ESE    2.5   2.3   1.3    .8    .4    .1    .0    .0    .0   7.6 ||
||    SE     2.8   2.1    .9    .4    .1    .0    .0    .0    .0   6.4 ||
||    SSE    2.5   2.0    .8    .3    .0    .0    .0    .0    .0   5.7 ||
||    S      3.5   3.3    .7    .2    .0    .0    .0    .0    .0   7.6 ||
||    SSW    4.1   2.4    .6    .1    .0    .0    .0    .0    .0   7.2 ||
||    SW     3.6   3.0    .7    .2    .0    .0    .0    .0    .0   7.5 ||
||    WSW    1.8   2.0   1.4    .2    .1    .2    .0    .0    .0   5.7 ||
||    W      1.8   2.2   2.0    .8    .2    .1    .0    .0    .0   7.1 ||
||    WNW    1.1   1.4   1.3    .8    .3    .1    .0    .0    .0   5.1 ||
||    NW     1.6   1.4   1.2    .8    .3    .1    .0    .0    .0   5.5 ||
||    NNW    1.7   1.0    .4    .2    .1    .0    .0    .0    .0   3.4 ||
||  TOTAL   37.4  33.2  16.7   6.9   2.3    .9    .2    .0    .0  97.6 ||
||                                                                  ||
||  CALM =  1.94%                                                   ||
||  MISSING DATA =   .45%                                           ||
||-----------------------------------------------------------------||
                    Wind Summary for 1995
              Fort McMurray Monitoring Station

||-----------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                 ||
||                         Wind Speed (km/h)                       ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N      461   561   338   103    19     2     0     0     0  1484 ||
||   NNE    177    51     6     1     0     0     0     0     0   235 ||
||   NE     145    21     0     0     0     0     0     0     0   166 ||
||   ENE    189    23    12     0     0     0     0     0     0   224 ||
||   E      170    30     3     0     0     0     0     0     0   203 ||
||   ESE    219    87    17     0     0     0     0     0     0   323 ||
||   SE     625   625   145     2     0     0     0     0     0  1397 ||
||   SSE    616   395    27     0     0     0     0     0     0  1038 ||
||   S      275    35     1     0     0     0     0     0     0   311 ||
||   SSW    188    20     0     0     0     0     0     0     0   208 ||
||   SW     327   201    54     8     0     0     0     0     0   590 ||
||   WSW    292   176    86    17     0     0     0     0     0   571 ||
||   W      264    83    54    25     4     2     0     0     0   432 ||
||   WNW    231    79    79    53    18     3     1     0     0   464 ||
||   NW     260    74    43    25    11     1     0     0     0   414 ||
||   NNW    300   206   120    21    11     4     0     0     0   662 ||
|| TOTAL   4739  2667   985   255    63    12     1     0     0  8722 ||
||                                                                 ||
|| CALM =      2 hours                                             ||
|| MISSING DATA =    36 hours                                      ||
||-----------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                 ||
||                         Wind Speed (km/h)                       ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N      5.3   6.4   3.9   1.2    .2    .0    .0    .0    .0  16.9 ||
||   NNE    2.0    .6    .1    .0    .0    .0    .0    .0    .0   2.7 ||
||   NE     1.7    .2    .0    .0    .0    .0    .0    .0    .0   1.9 ||
||   ENE    2.2    .3    .1    .0    .0    .0    .0    .0    .0   2.6 ||
||   E      1.9    .3    .0    .0    .0    .0    .0    .0    .0   2.3 ||
||   ESE    2.5   1.0    .2    .0    .0    .0    .0    .0    .0   3.7 ||
||   SE     7.1   7.1   1.7    .0    .0    .0    .0    .0    .0  15.9 ||
||   SSE    7.0   4.5    .3    .0    .0    .0    .0    .0    .0  11.8 ||
||   S      3.1    .4    .0    .0    .0    .0    .0    .0    .0   3.6 ||
||   SSW    2.1    .2    .0    .0    .0    .0    .0    .0    .0   2.4 ||
||   SW     3.7   2.3    .6    .1    .0    .0    .0    .0    .0   6.7 ||
||   WSW    3.3   2.0   1.0    .2    .0    .0    .0    .0    .0   6.5 ||
||   W      3.0    .9    .6    .3    .0    .0    .0    .0    .0   4.9 ||
||   WNW    2.6    .9    .9    .6    .2    .0    .0    .0    .0   5.3 ||
||   NW     3.0    .8    .5    .3    .1    .0    .0    .0    .0   4.7 ||
||   NNW    3.4   2.4   1.4    .2    .1    .0    .0    .0    .0   7.6 ||
|| TOTAL   54.1  30.4  11.2   2.9    .7    .1    .0    .0    .0  99.6 ||
||                                                                 ||
|| CALM =    .02%                                                  ||
|| MISSING DATA =   .41%                                           ||
||-----------------------------------------------------------------||
                        Wind Summary for 1995
                    Fort MacKay Monitoring Station

||------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                  ||
||                          Wind Speed (km/h)                       ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N      626   364    85    10     0     0     0     0     0  1085 ||
||   NNE    607   344   128    16     1     0     0     0     0  1096 ||
||   NE     263   130    29     2     0     0     0     0     0   424 ||
||   ENE    172    22     2     0     0     0     0     0     0   196 ||
||   E      134    16     4     0     0     0     0     0     0   154 ||
||   ESE    115    23    12     0     0     0     0     0     0   150 ||
||   SE     149    66    29     0     0     0     0     0     0   244 ||
||   SSE    252   197    44     8     0     0     0     0     0   501 ||
||   S      636   348     6     0     0     0     0     0     0   990 ||
||   SSW    703   214     8     0     0     0     0     0     0   925 ||
||   SW     306   100    16     0     0     0     0     0     0   422 ||
||   WSW    211    97    12     0     0     0     0     0     0   320 ||
||   W      197    92     4     0     0     0     0     0     0   293 ||
||   WNW    175    92     6     1     0     0     0     0     0   274 ||
||   NW     237    86    10     2     0     0     0     0     0   335 ||
||   NNW    287   103    29     5     0     0     0     0     0   424 ||
|| TOTAL   5070  2294   424    44     1     0     0     0     0  7833 ||
||                                                                  ||
|| CALM =      3 hours                                              ||
|| MISSING DATA =    924 hours                                      ||
||------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent) ||
||                                                                  ||
||                          Wind Speed (km/h)                       ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N      7.1   4.2   1.0    .1    .0    .0    .0    .0    .0  12.4 ||
||   NNE    6.9   3.9   1.5    .2    .0    .0    .0    .0    .0  12.5 ||
||   NE     3.0   1.5    .3    .0    .0    .0    .0    .0    .0   4.8 ||
||   ENE    2.0    .3    .0    .0    .0    .0    .0    .0    .0   2.2 ||
||   E      1.5    .2    .0    .0    .0    .0    .0    .0    .0   1.8 ||
||   ESE    1.3    .3    .1    .0    .0    .0    .0    .0    .0   1.7 ||
||   SE     1.7    .8    .3    .0    .0    .0    .0    .0    .0   2.8 ||
||   SSE    2.9   2.2    .5    .1    .0    .0    .0    .0    .0   5.7 ||
||   S      7.3   4.0    .1    .0    .0    .0    .0    .0    .0  11.3 ||
||   SSW    8.0   2.4    .1    .0    .0    .0    .0    .0    .0  10.6 ||
||   SW     3.5   1.1    .2    .0    .0    .0    .0    .0    .0   4.8 ||
||   WSW    2.4   1.1    .1    .0    .0    .0    .0    .0    .0   3.7 ||
||   W      2.2   1.1    .0    .0    .0    .0    .0    .0    .0   3.3 ||
||   WNW    2.0   1.1    .1    .0    .0    .0    .0    .0    .0   3.1 ||
||   NW     2.7   1.0    .1    .0    .0    .0    .0    .0    .0   3.8 ||
||   NNW    3.3   1.2    .3    .1    .0    .0    .0    .0    .0   4.8 ||
|| TOTAL   57.9  26.2   4.8    .5    .0    .0    .0    .0    .0  89.4 ||
||                                                                  ||
|| CALM =    .03%                                                   ||
|| MISSING DATA = 10.55%                                            ||
||------------------------------------------------------------------||
                         Wind Summary for 1995
                  Springbank Airport Monitoring Station

||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                         Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      101    87   113    87    17     3     3     1     1   413  ||
||    NNE     83    68    72    52    16     5     2     2     0   300  ||
||    NE      72    84    54    21     7     2     1     0     0   241  ||
||    ENE     88    87    59    18     4     1     0     0     0   257  ||
||    E       91    99    81    41     5     0     0     0     0   317  ||
||    ESE     94   114    64    18    13     2     0     0     0   305  ||
||    SE     129   212   244   157    56    15     6     0     0   819  ||
||    SSE    156   166   122    84    33    16     1     0     0   578  ||
||    S      162   112    22    14     3     2     0     0     0   315  ||
||    SSW    112    44    16     7     1     1     0     0     0   181  ||
||    SW     127    43    15     8     5     1     0     1     0   200  ||
||    WSW    118    62    59    34    10    13    10     8     1   315  ||
||    W      170   105   128   147   117    78    49    25    18   837  ||
||    WNW    237   251   142    51    33    23     8     3     0   748  ||
||    NW     353   677   700   309    66    21    11     3     0  2140  ||
||    NNW    151   148   173   100    50    23     6     1     4   656  ||
||  TOTAL   2244  2359  2064  1148   436   206    97    44    24  8622  ||
||                                                                   ||
||  CALM =    138 hours                                              ||
||  MISSING DATA =      0 hours                                      ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                   ||
||                         Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      1.2   1.0   1.3   1.0    .2    .0    .0    .0    .0   4.7  ||
||    NNE     .9    .8    .8    .6    .2    .1    .0    .0    .0   3.4  ||
||    NE      .8   1.0    .6    .2    .1    .0    .0    .0    .0   2.8  ||
||    ENE    1.0   1.0    .7    .2    .0    .0    .0    .0    .0   2.9  ||
||    E      1.0   1.1    .9    .5    .1    .0    .0    .0    .0   3.6  ||
||    ESE    1.1   1.3    .7    .2    .1    .0    .0    .0    .0   3.5  ||
||    SE     1.5   2.4   2.8   1.8    .6    .2    .1    .0    .0   9.3  ||
||    SSE    1.8   1.9   1.4   1.0    .4    .2    .0    .0    .0   6.6  ||
||    S      1.8   1.3    .3    .2    .0    .0    .0    .0    .0   3.6  ||
||    SSW    1.3    .5    .2    .1    .0    .0    .0    .0    .0   2.1  ||
||    SW     1.4    .5    .2    .1    .1    .0    .0    .0    .0   2.3  ||
||    WSW    1.3    .7    .7    .4    .1    .1    .1    .1    .0   3.6  ||
||    W      1.9   1.2   1.5   1.7   1.3    .9    .6    .3    .2   9.6  ||
||    WNW    2.7   2.9   1.6    .6    .4    .3    .1    .0    .0   8.5  ||
||    NW     4.0   7.7   8.0   3.5    .8    .2    .1    .0    .0  24.4  ||
||    NNW    1.7   1.7   2.0   1.1    .6    .3    .1    .0    .0   7.5  ||
||  TOTAL   25.6  26.9  23.6  13.1   5.0   2.4   1.1    .5    .3  98.4  ||
||                                                                   ||
||  CALM =   1.58%                                                   ||
||  MISSING DATA =    .00%                                           ||
||-------------------------------------------------------------------||
                        Wind Summary for 1995
               Royal Park Monitoring Station (Vegreville)

||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                          Wind Speed (km/h)                        ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       71    72    71    61    34     5     1     0     3   318  ||
||    NNE     23    46    61    27     7     5     2     2     0   173  ||
||    NE      37   107   121    78    30     4     3     5     0   385  ||
||    ENE     38    96    93    41    30    18     7     6     0   329  ||
||    E       86   145   130    48    30    21     3     0     0   463  ||
||    ESE     51   106   131   141    94    61    13    10     0   607  ||
||    SE      66   141   172   114    42    26    30     0     0   591  ||
||    SSE     66   213   134    76    25     9     3     0     0   526  ||
||    S      121   263   122    60    19     6     0     0     0   591  ||
||    SSW     66   184    99    64    25     5     1     0     0   444  ||
||    SW      52   167    99    33    11     9     0     0     0   371  ||
||    WSW     51   169   112    47    13     6     0     0     0   398  ||
||    W      123   259   204    89    24     5     3     1     4   712  ||
||    WNW     57   148   161   131   110    45    19     5    10   686  ||
||    NW      37   165   233   147   116    53    20     9     8   788  ||
||    NNW     44    92    93    74    46    28    15     1     0   393  ||
||  TOTAL    989  2373  2036  1231   656   306   120    39    25  7775  ||
||                                                                   ||
||  CALM =     88 hours                                              ||
||  MISSING DATA =    897 hours                                      ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                   ||
||                          Wind Speed (km/h)                        ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .8    .8    .8    .7    .4    .1    .0    .0    .0   3.6  ||
||    NNE     .3    .5    .7    .3    .1    .1    .0    .0    .0   2.0  ||
||    NE      .4   1.2   1.4    .9    .3    .0    .0    .1    .0   4.4  ||
||    ENE     .4   1.1   1.1    .5    .3    .2    .1    .1    .0   3.8  ||
||    E      1.0   1.7   1.5    .5    .3    .2    .0    .0    .0   5.3  ||
||    ESE     .6   1.2   1.5   1.6   1.1    .7    .1    .1    .0   6.9  ||
||    SE      .8   1.6   2.0   1.3    .5    .3    .3    .0    .0   6.7  ||
||    SSE     .8   2.4   1.5    .9    .3    .1    .0    .0    .0   6.0  ||
||    S      1.4   3.0   1.4    .7    .2    .1    .0    .0    .0   6.7  ||
||    SSW     .8   2.1   1.1    .7    .3    .1    .0    .0    .0   5.1  ||
||    SW      .6   1.9   1.1    .4    .1    .1    .0    .0    .0   4.2  ||
||    WSW     .6   1.9   1.3    .5    .1    .1    .0    .0    .0   4.5  ||
||    W      1.4   3.0   2.3   1.0    .3    .1    .0    .0    .0   8.1  ||
||    WNW     .7   1.7   1.8   1.5   1.3    .5    .2    .1    .1   7.8  ||
||    NW      .4   1.9   2.7   1.7   1.3    .6    .2    .1    .1   9.0  ||
||    NNW     .5   1.1   1.1    .8    .5    .3    .2    .0    .0   4.5  ||
||  TOTAL   11.3  27.1  23.2  14.1   7.5   3.5   1.4    .4    .3  88.8  ||
||                                                                   ||
||  CALM =  1.00%                                                    ||
||  MISSING DATA = 10.24%                                            ||
||-------------------------------------------------------------------||
```

```
                              NH3 Summary Statistics for 1995
                              Fort Saskatchewan Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =  2.0 PPM                                          ||
||-------------------------------------BY SEASON-----------------------------------------||
|| SEASON     MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter      .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .0 ||
|| Spring      .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .2 ||
|| Summer      .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| Autumn      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1      .1 ||
||                                                                                       ||
|| SEASON Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances         ||
||          Mean       Mean     Std Dev                      1 hour                      ||
|| Winter     .00        .00        .00       .0   743     0(0.00%)                      ||
|| Spring     .00        .00        .01       .2  1377     0(0.00%)                      ||
|| Summer     .00        .00        .01       .1  1921     0(0.00%)                      ||
|| Autumn     .01        .00        .01       .1  2036     0(0.00%)                      ||
||-------------------------------------BY MONTH------------------------------------------||
|| MONTH      MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        *       *       *       *       *       *       *       *       *       *       *   ||
|| Feb        *       *       *       *       *       *       *       *       *       *       *   ||
|| Mar        *       *       *       *       *       *       *       *       *       *       *   ||
|| Apr         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| May         .0      .0      .0      .0      .0      .0      .0      .0      .0      .1      .2 ||
|| Jun         .0      .0      .0      .0      .0      .0      .0      .0      .0      .1      .1 ||
|| Jul         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| Aug         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| Sep         .0      .0      .0      .0      .0      .0      .0      .0      .0      .1      .1 ||
|| Oct         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| Nov         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .1 ||
|| Dec         .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .0 ||
||                                                                                       ||
|| MONTH  Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances         ||
||          Mean       Mean     Std Dev                      1 hour                      ||
|| Jan        *          *          *        *     *                 *                   ||
|| Feb        *          *          *        *     *                 *                   ||
|| Mar        *          *          *        *     *                 *                   ||
|| Apr        .00        .00        .00       .1   697     0(0.00%)                      ||
|| May        .00        .00        .01       .2   680     0(0.00%)                      ||
|| Jun        .01        .00        .01       .1   481     0(0.00%)                      ||
|| Jul        .00        .00        .01       .1   713     0(0.00%)                      ||
|| Aug        .00        .00        .01       .1   727     0(0.00%)                      ||
|| Sep        .01        .00        .02       .1   589     0(0.00%)                      ||
|| Oct        .01        .00        .01       .1   738     0(0.00%)                      ||
|| Nov        .00        .00        .00       .1   709     0(0.00%)                      ||
|| Dec        .00        .00        .00       .0   743     0(0.00%)                      ||
||--------------------------------------BY YEAR------------------------------------------||
|| YEAR       MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995        .0      .0      .0      .0      .0      .0      .0      .0      .0      .0      .2 ||
||                                                                                       ||
|| YEAR   Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances         ||
||          Mean       Mean     Std Dev                      1 hour                      ||
|| 1995       .00        .00        .01       .2  6077     0(0.00%)                      ||
||---------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

Annual Average Concentration
Year: 1995
Pollutant: NH3 [ppm]

Year	Fort Saskatchewan
1976	*
1977	*
1978	*
1979	*
1980	*
1981	0.00
1982	0.00
1983	0.00
1984	0.03
1985	0.01
1986	0.03
1987	0.01
1988	0.02
1989	0.00a
1990	0.01
1991	0.01
1992	b
1993	b
1994	*
1995	0.00

a 50% to 75% of data available
b less than 50% of data available
* no data available

```
                       CO  Summary Statistics for 1995
                       Edmonton Central Monitoring Station
                       Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                 ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                 ||
||------------------------------------BY SEASON---------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .0     .1      .3      .4      .6     1.0     1.7     2.9     3.8     6.4    13.0 ||
|| Spring     .1     .2      .3      .3      .5      .7      .9     1.3     1.7     2.9     5.3 ||
|| Summer     .0     .0      .1      .1      .3      .5      .7     1.0     1.1     1.7     2.9 ||
|| Autumn     .0     .0      .1      .2      .4      .8     1.3     1.8     2.3     4.3     9.0 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean     Std Dev                    1 hour       8 hour  ||
|| Winter    1.37       .98       1.26     13.0  2153     0(0.00%)     4(1.49%) ||
|| Spring     .77       .66        .51      5.2  2200     0(0.00%)     0(0.00%) ||
|| Summer     .53       .33        .35      2.9  2146     0(0.00%)     0(0.00%) ||
|| Autumn     .95       .48        .87      9.0  2135     0(0.00%)     0(0.00%) ||
||------------------------------------BY MONTH----------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .1     .2      .3      .4      .7     1.3     2.4     3.8     5.0     7.7    13.0 ||
|| Feb        .0     .1      .3      .4      .6      .9     1.3     2.0     2.7     4.3     7.5 ||
|| Mar        .2     .2      .3      .4      .6      .8     1.2     1.7     2.2     3.8     5.3 ||
|| Apr        .2     .3      .3      .3      .4      .6      .9     1.2     1.5     2.1     3.0 ||
|| May        .1     .2      .2      .3      .4      .5      .8      .9     1.2     2.3     4.1 ||
|| Jun        .0     .1      .2      .3      .4      .6      .8     1.1     1.3     1.7     2.9 ||
|| Jul        .0     .0      .1      .1      .3      .5      .7      .9     1.0     1.4     1.6 ||
|| Aug        .0     .0      .0      .1      .2      .4      .7      .9     1.1     2.0     2.4 ||
|| Sep        .0     .0      .1      .3      .9     1.2     1.6     2.0     2.5     4.9     8.7 ||
|| Oct        .0     .0      .0      .1      .2      .5      .9     1.5     2.1     4.2     5.1 ||
|| Nov        .0     .1      .1      .2      .4      .7     1.1     1.8     2.2     4.5     9.0 ||
|| Dec        .1     .1      .2      .3      .5      .9     1.5     2.4     3.1     5.8     7.5 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean     Std Dev                    1 hour       8 hour  ||
|| Jan       1.81      1.28       1.62     12.9   744     0(0.00%)     3(3.23%) ||
|| Feb       1.09       .81        .84      7.5   668     0(0.00%)     0(0.00%) ||
|| Mar        .99       .84        .66      5.1   741     0(0.00%)     0(0.00%) ||
|| Apr        .71       .63        .39      2.8   718     0(0.00%)     0(0.00%) ||
|| May        .61       .54        .35      4.0   741     0(0.00%)     0(0.00%) ||
|| Jun        .63       .53        .34      2.9   720     0(0.00%)     0(0.00%) ||
|| Jul        .49       .27        .30      1.6   744     0(0.00%)     0(0.00%) ||
|| Aug        .48       .21        .40      2.4   682     0(0.00%)     0(0.00%) ||
|| Sep       1.29       .75        .91      8.7   685     0(0.00%)     0(0.00%) ||
|| Oct        .70       .29        .73      5.1   732     0(0.00%)     0(0.00%) ||
|| Nov        .88       .56        .85      9.0   718     0(0.00%)     0(0.00%) ||
|| Dec       1.18       .88       1.01      7.4   741     0(0.00%)     1(1.09%) ||
||------------------------------------BY YEAR-----------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0     .0      .1      .2      .4      .7     1.1     1.7     2.4     4.5    13.0 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean     Std Dev                    1 hour       8 hour  ||
|| 1995       .90       .50        .88     13.0  8634     0(0.00%)     4(0.37%) ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                                 CO  Summary Statistics for 1995
                                 Edmonton Northwest Monitoring Station
                                 Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                       ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                       ||
||------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .2     .2      .3      .3      .5      .9     1.7     2.9     4.0     7.1    13.4 ||
|| Spring     .2     .2      .3      .3      .4      .5      .7     1.2     1.7     3.4     6.6 ||
|| Summer     .2     .3      .3      .4      .4      .6      .7     1.0     1.3     1.9     3.9 ||
|| Autumn     .2     .2      .3      .3      .4      .6      .9     1.7     2.4     4.9    11.3 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| Winter    1.35       .94       1.39     13.2  2156     1(0.05%)     4(1.49%)       ||
|| Spring     .68       .56        .57      6.4  2201     0(0.00%)     0(0.00%)       ||
|| Summer     .64       .58        .34      3.7  2200     0(0.00%)     0(0.00%)       ||
|| Autumn     .87       .66        .88     11.1  2181     0(0.00%)     0(0.00%)       ||
||------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .2     .2      .3      .4      .5     1.1     2.2     3.8     4.8     8.9    11.8 ||
|| Feb        .2     .2      .3      .3      .4      .6     1.1     1.9     2.7     4.8     7.4 ||
|| Mar        .2     .2      .2      .3      .4      .5      .8     1.8     2.5     4.3     6.6 ||
|| Apr        .2     .3      .3      .3      .4      .5      .7     1.0     1.3     2.5     4.9 ||
|| May        .2     .3      .3      .3      .4      .5      .7      .9     1.2     2.1     3.8 ||
|| Jun        .2     .3      .3      .4      .4      .6      .8     1.1     1.3     1.9     3.2 ||
|| Jul        .2     .3      .3      .4      .4      .5      .7     1.0     1.2     1.8     2.1 ||
|| Aug        .3     .3      .3      .4      .4      .6      .7     1.1     1.5     2.2     3.9 ||
|| Sep        .2     .2      .3      .4      .5      .6     1.0     1.7     2.5     5.5     5.9 ||
|| Oct        .2     .2      .2      .3      .4      .6     1.0     1.8     2.4     4.7     9.9 ||
|| Nov        .2     .2      .3      .3      .4      .5      .9     1.5     2.4     4.8    11.3 ||
|| Dec        .2     .2      .3      .4      .5      .9     1.8     2.8     3.8     6.6    13.4 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| Jan       1.66      1.13       1.66     11.6   744     0(0.00%)     3(3.23%)       ||
|| Feb        .95       .72        .89      7.2   672     0(0.00%)     0(0.00%)       ||
|| Mar        .82       .63        .80      6.4   740     0(0.00%)     0(0.00%)       ||
|| Apr        .61       .53        .45      4.7   720     0(0.00%)     0(0.00%)       ||
|| May        .60       .54        .35      3.6   741     0(0.00%)     0(0.00%)       ||
|| Jun        .66       .59        .34      3.0   720     0(0.00%)     0(0.00%)       ||
|| Jul        .61       .56        .28      1.9   741     0(0.00%)     0(0.00%)       ||
|| Aug        .66       .59        .39      3.6   739     0(0.00%)     0(0.00%)       ||
|| Sep        .90       .70        .86      5.7   720     0(0.00%)     0(0.00%)       ||
|| Oct        .86       .65        .88      9.7   744     0(0.00%)     0(0.00%)       ||
|| Nov        .83       .63        .91     11.1   717     0(0.00%)     0(0.00%)       ||
|| Dec       1.39       .99       1.37     13.2   740     1(0.14%)     1(1.09%)       ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .2     .2      .3      .3      .4      .6      .9     1.7     2.5     4.8    13.4 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| 1995       .88       .67        .93     13.2  8738     1(0.01%)     4(0.37%)       ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                              Wind Summary for 1995
                       Edmonton Northwest Monitoring Station
   ** calculation is for exceedances of the 1-hour guideline  for CO  **
||----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                           Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        1     0     0     0     0     0     0     0     0     1  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      0     0     0     0     0     0     0     0     0     0  ||
||    E        0     0     0     0     0     0     0     0     0     0  ||
||    ESE      0     0     0     0     0     0     0     0     0     0  ||
||    SE       0     0     0     0     0     0     0     0     0     0  ||
||    SSE      0     0     0     0     0     0     0     0     0     0  ||
||    S        0     0     0     0     0     0     0     0     0     0  ||
||    SSW      0     0     0     0     0     0     0     0     0     0  ||
||    SW       0     0     0     0     0     0     0     0     0     0  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        0     0     0     0     0     0     0     0     0     0  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL      1     0     0     0     0     0     0     0     0     1  ||
||                                                                      ||
||  CALM =      0 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                           Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N    100.0    .0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL  100.0    .0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
||                                                                      ||
||  CALM =    .00%                                                      ||
||  MISSING DATA =    .00%                                              ||
||----------------------------------------------------------------------||
                           Wind Summary for 1995
                    Edmonton Northwest Monitoring Station
   ** calculation is for exceedances of the 8-hour guideline  for CO  **
||----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||   N        2     0     0     0     0     0     0     0     0     2   ||
||   NNE      1     0     0     0     0     0     0     0     0     1   ||
||   NE       1     0     0     0     0     0     0     0     0     1   ||
||   ENE      1     1     0     0     0     0     0     0     0     2   ||
||   E        2     0     0     0     0     0     0     0     0     2   ||
||   ESE      1     0     0     0     0     0     0     0     0     1   ||
||   SE       2     0     0     0     0     0     0     0     0     2   ||
||   SSE      1     0     0     0     0     0     0     0     0     1   ||
||   S        0     2     0     0     0     0     0     0     0     2   ||
||   SSW      0     4     0     0     0     0     0     0     0     4   ||
||   SW       2     3     0     0     0     0     0     0     0     5   ||
||   WSW      1     1     0     0     0     0     0     0     0     2   ||
||   W        3     2     0     0     0     0     0     0     0     5   ||
||   WNW      1     0     0     0     0     0     0     0     0     1   ||
||   NW       0     0     0     0     0     0     0     0     0     0   ||
||   NNW      0     0     0     0     0     0     0     0     0     0   ||
||  TOTAL    18    13     0     0     0     0     0     0     0    31   ||
||                                                                      ||
||  CALM =      1 hours                                                 ||
||  MISSING DATA =     0 hours                                          ||
||----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||   N      6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   NNE    3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   NE     3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   ENE    3.1   3.1    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   E      6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   ESE    3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   SE     6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   SSE    3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   S       .0   6.3    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   SSW     .0  12.5    .0    .0    .0    .0    .0    .0    .0  12.5   ||
||   SW     6.3   9.4    .0    .0    .0    .0    .0    .0    .0  15.6   ||
||   WSW    3.1   3.1    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||   W      9.4   6.3    .0    .0    .0    .0    .0    .0    .0  15.6   ||
||   WNW    3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||   NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||  TOTAL  56.3  40.6    .0    .0    .0    .0    .0    .0    .0  96.9   ||
||                                                                      ||
||  CALM =  3.13%                                                       ||
||  MISSING DATA =   .00%                                               ||
||----------------------------------------------------------------------||
                              CO  Summary Statistics for 1995
                              Edmonton East Monitoring Station
                              Units are PPM (parts per million)
||--------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                    ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                    ||
||------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .1     .1      .2      .2      .3      .5      .9     1.3     1.8     2.7     4.8 ||
|| Spring     .0     .0      .2      .2      .3      .3      .5      .6      .8     1.2     2.6 ||
|| Summer     .0     .0      .2      .2      .3      .4      .5      .7      .8     1.1     1.5 ||
|| Autumn     .0     .0      .1      .2      .3      .4      .5      .8     1.1     1.8     3.3 ||
||                                                                                ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                   1 hour       8 hour     ||
|| Winter     .67        .53        .53     4.7  2148     0(0.00%)     0(0.00%)    ||
|| Spring     .39        .29        .22     2.6  2195     0(0.00%)     0(0.00%)    ||
|| Summer     .40        .28        .20     1.5  2201     0(0.00%)     0(0.00%)    ||
|| Autumn     .46        .30        .34     3.3  2166     0(0.00%)     0(0.00%)    ||
||------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .1     .2      .2      .2      .3      .5     1.0     1.6     2.1     2.9     3.5 ||
|| Feb        .1     .2      .2      .2      .3      .4      .6     1.0     1.3     2.4     4.8 ||
|| Mar        .1     .1      .2      .2      .2      .3      .4      .7      .9     1.6     2.6 ||
|| Apr        .1     .1      .2      .2      .3      .4      .5      .7      .8     1.2     1.4 ||
|| May        .0     .0      .2      .2      .2      .3      .4      .5      .6     1.0     1.6 ||
|| Jun        .0     .1      .2      .2      .3      .3      .5      .7      .9     1.3     1.5 ||
|| Jul        .0     .0      .1      .2      .3      .4      .5      .6      .7     1.0     1.2 ||
|| Aug        .1     .2      .2      .3      .3      .4      .5      .7      .9     1.2     1.4 ||
|| Sep        .0     .0      .1      .1      .2      .3      .5      .8     1.1     2.1     3.1 ||
|| Oct        .1     .1      .2      .2      .3      .4      .6      .8      .9     1.3     2.0 ||
|| Nov        .1     .1      .2      .2      .3      .4      .6      .9     1.2     1.8     3.3 ||
|| Dec        .1     .1      .2      .2      .3      .5      .9     1.3     1.7     2.3     3.8 ||
||                                                                                ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                   1 hour       8 hour     ||
|| Jan        .77        .59        .61     3.4   739     0(0.00%)     0(0.00%)    ||
|| Feb        .56        .46        .47     4.7   668     0(0.00%)     0(0.00%)    ||
|| Mar        .38        .33        .27     2.5   740     0(0.00%)     0(0.00%)    ||
|| Apr        .46        .42        .19     1.3   716     0(0.00%)     0(0.00%)    ||
|| May        .32        .17        .16     1.6   739     0(0.00%)     0(0.00%)    ||
|| Jun        .40        .32        .22     1.5   720     0(0.00%)     0(0.00%)    ||
|| Jul        .38        .27        .19     1.2   739     0(0.00%)     0(0.00%)    ||
|| Aug        .43        .39        .19     1.3   742     0(0.00%)     0(0.00%)    ||
|| Sep        .42        .24        .39     3.1   717     0(0.00%)     0(0.00%)    ||
|| Oct        .46        .40        .25     1.9   740     0(0.00%)     0(0.00%)    ||
|| Nov        .50        .42        .35     3.2   709     0(0.00%)     0(0.00%)    ||
|| Dec        .67        .53        .49     3.7   741     0(0.00%)     0(0.00%)    ||
||-------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0     .0      .2      .2      .3      .4      .5      .9     1.2     2.0     4.8 ||
||                                                                                ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                   1 hour       8 hour     ||
|| 1995       .48        .34        .37     4.8  8710     0(0.00%)     0(0.00%)    ||
||--------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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```
                             CO  Summary Statistics for 1995
                             Calgary Central Monitoring Station
                             Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                        ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                        ||
||--------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter     .2     .3     .3     .4     .6    1.0    1.8    3.1    4.4    6.8   16.7 ||
|| Spring     .2     .2     .3     .3     .5     .7    1.0    1.4    1.8    2.8    4.6 ||
|| Summer     .2     .2     .3     .3     .4     .6     .9    1.1    1.3    2.1    4.0 ||
|| Autumn     .2     .2     .3     .3     .5     .8    1.3    2.2    3.2    5.3   22.2 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances        ||
||            Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| Winter    1.45      1.04       1.43     16.5  2150     2(0.09%)     4(1.50%)        ||
|| Spring     .82       .70        .52      4.4  2194     0(0.00%)     0(0.00%)        ||
|| Summer     .69       .61        .37      3.8  2188     0(0.00%)     0(0.00%)        ||
|| Autumn    1.13       .86       1.12     22.0  2173     2(0.09%)     2(0.74%)        ||
||--------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan        .2     .3     .3     .4     .7    1.3    2.3    4.1    5.1    9.2   16.7 ||
|| Feb        .2     .2     .3     .4     .6     .9    1.5    2.3    3.4    5.9    7.9 ||
|| Mar        .2     .3     .4     .4     .6     .8    1.3    1.9    2.2    3.7    4.6 ||
|| Apr        .3     .3     .3     .3     .4     .6     .9    1.3    1.5    2.6    3.4 ||
|| May        .2     .2     .3     .3     .4     .6     .9    1.1    1.4    1.8    3.6 ||
|| Jun        .2     .2     .2     .3     .4     .6     .8    1.1    1.3    1.7    2.2 ||
|| Jul        .2     .2     .3     .3     .4     .6     .8    1.0    1.2    1.9    4.0 ||
|| Aug        .2     .2     .3     .4     .5     .7     .9    1.2    1.5    2.3    3.1 ||
|| Sep        .2     .2     .3     .3     .5     .8    1.1    1.8    2.5    4.1    5.3 ||
|| Oct        .2     .2     .3     .3     .5     .8    1.2    1.8    2.5    4.1    5.4 ||
|| Nov        .2     .2     .3     .4     .6    1.0    1.6    3.2    4.4    7.5   22.2 ||
|| Dec        .2     .2     .3     .4     .5     .9    1.5    2.6    4.0    6.0    8.1 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances        ||
||            Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| Jan       1.84      1.30       1.79     16.5   741     2(0.27%)     4(4.35%)        ||
|| Feb       1.23       .94       1.07      7.7   667     0(0.00%)     0(0.00%)        ||
|| Mar       1.02       .86        .65      4.4   740     0(0.00%)     0(0.00%)        ||
|| Apr        .73       .64        .44      3.1   717     0(0.00%)     0(0.00%)        ||
|| May        .70       .62        .37      3.4   737     0(0.00%)     0(0.00%)        ||
|| Jun        .64       .56        .33      2.0   715     0(0.00%)     0(0.00%)        ||
|| Jul        .65       .58        .35      3.8   736     0(0.00%)     0(0.00%)        ||
|| Aug        .76       .68        .40      2.9   737     0(0.00%)     0(0.00%)        ||
|| Sep        .96       .78        .73      5.1   716     0(0.00%)     0(0.00%)        ||
|| Oct        .98       .79        .73      5.2   741     0(0.00%)     0(0.00%)        ||
|| Nov       1.46      1.02       1.61     22.0   716     2(0.28%)     2(2.25%)        ||
|| Dec       1.27       .93       1.20      7.9   742     0(0.00%)     0(0.00%)        ||
||---------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995       .2     .2     .3     .3     .5     .7    1.1    1.9    2.7    5.2   22.2 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances        ||
||            Mean      Mean    Std Dev                   1 hour       8 hour          ||
|| 1995      1.02       .78       1.00     22.0  8705     4(0.05%)     6(0.56%)        ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                                  CO  Summary Statistics for 1995
                                  Calgary Northwest Monitoring Station
                                  Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                      ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                      ||
||-------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .1     .2      .2      .3      .4      .6      .9     1.8     2.8     5.5     9.3 ||
|| Spring     .2     .3      .3      .3      .4      .4      .6      .8     1.1     2.0     4.3 ||
|| Summer     .2     .2      .2      .3      .3      .4      .5      .6      .7     1.0     1.6 ||
|| Autumn     .1     .2      .2      .2      .3      .4      .7     1.1     1.7     3.7     8.5 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                   1 hour      8 hour         ||
|| Winter     .88        .64        .97      9.2  2147     0(0.00%)     1(0.37%)      ||
|| Spring     .53        .48        .32      4.1  2111     0(0.00%)     0(0.00%)      ||
|| Summer     .42        .39        .17      1.4  2196     0(0.00%)     0(0.00%)      ||
|| Autumn     .63        .49        .68      8.4  2173     0(0.00%)     1(0.37%)      ||
||-------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .3     .3      .3      .3      .5      .7     1.2     2.7     3.7     6.2     9.3 ||
|| Feb        .3     .3      .3      .3      .4      .5      .8     1.4     1.9     3.4     4.8 ||
|| Mar        .2     .2      .3      .3      .4      .5      .7     1.2     1.6     2.6     4.3 ||
|| Apr        .2     .3      .3      .3      .4      .4      .5      .7      .8     1.2     2.4 ||
|| May        .3     .3      .3      .3      .3      .4      .5      .6      .7     1.3     2.6 ||
|| Jun        .2     .2      .2      .2      .3      .4      .4      .6      .7     1.1     1.6 ||
|| Jul        .2     .2      .3      .3      .3      .4      .5      .7      .8     1.0     1.3 ||
|| Aug        .2     .2      .3      .3      .3      .4      .5      .6      .7     1.1     1.6 ||
|| Sep        .2     .2      .3      .3      .3      .4      .6      .9     1.2     2.4     3.5 ||
|| Oct        .2     .2      .2      .2      .3      .4      .6     1.0     1.5     2.6     5.5 ||
|| Nov        .1     .2      .2      .2      .3      .5      .9     1.6     2.8     5.7     8.5 ||
|| Dec        .1     .1      .2      .2      .3      .5      .8     1.4     2.4     5.4     7.7 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                   1 hour      8 hour         ||
|| Jan       1.15        .82       1.21      9.0   740     0(0.00%)     0(0.00%)      ||
|| Feb        .74        .61        .60      4.5   668     0(0.00%)     0(0.00%)      ||
|| Mar        .67        .57        .47      4.1   670     0(0.00%)     0(0.00%)      ||
|| Apr        .48        .45        .19      2.2   700     0(0.00%)     0(0.00%)      ||
|| May        .45        .43        .18      2.3   741     0(0.00%)     0(0.00%)      ||
|| Jun        .39        .36        .17      1.4   718     0(0.00%)     0(0.00%)      ||
|| Jul        .44        .41        .17      1.1   740     0(0.00%)     0(0.00%)      ||
|| Aug        .43        .41        .17      1.4   738     0(0.00%)     0(0.00%)      ||
|| Sep        .54        .47        .38      3.3   716     0(0.00%)     0(0.00%)      ||
|| Oct        .53        .42        .50      5.3   740     0(0.00%)     0(0.00%)      ||
|| Nov        .83        .59        .97      8.4   717     0(0.00%)     1(1.12%)      ||
|| Dec        .75        .53        .91      7.6   739     0(0.00%)     1(1.09%)      ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .1     .2      .2      .3      .3      .4      .6     1.0     1.6     3.7     9.3 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                   1 hour      8 hour         ||
|| 1995       .62        .49        .64      9.2  8627     0(0.00%)     2(0.19%)      ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                  Calgary Northwest Monitoring Station
   ** calculation is for exceedances of the 8-hour guideline  for CO  **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                       ||
||                        Wind Speed (km/h)                              ||
||    Dir    1-5   6-10  11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N        0     0     0     0     0     0     0     0     0     0   ||
||    NNE      0     0     0     0     0     0     0     0     0     0   ||
||    NE       1     0     0     0     0     0     0     0     0     1   ||
||    ENE      1     0     0     0     0     0     0     0     0     1   ||
||    E        0     0     0     0     0     0     0     0     0     0   ||
||    ESE      2     0     0     0     0     0     0     0     0     2   ||
||    SE       3     0     0     0     0     0     0     0     0     3   ||
||    SSE      0     0     0     0     0     0     0     0     0     0   ||
||    S        0     0     0     0     0     0     0     0     0     0   ||
||    SSW      0     0     0     0     0     0     0     0     0     0   ||
||    SW       0     0     0     0     0     0     0     0     0     0   ||
||    WSW      0     0     0     0     0     0     0     0     0     0   ||
||    W        1     0     0     0     0     0     0     0     0     1   ||
||    WNW      2     0     0     0     0     0     0     0     0     2   ||
||    NW       1     0     0     0     0     0     0     0     0     1   ||
||    NNW      1     0     0     0     0     0     0     0     0     1   ||
||  TOTAL     12     0     0     0     0     0     0     0     0    12   ||
||                                                                       ||
||  CALM =      4 hours                                                  ||
||  MISSING DATA =     0 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                       ||
||                        Wind Speed (km/h)                              ||
||    Dir    1-5   6-10  11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    NE     6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||    ENE    6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    ESE   12.5    .0    .0    .0    .0    .0    .0    .0    .0  12.5   ||
||    SE    18.8    .0    .0    .0    .0    .0    .0    .0    .0  18.8   ||
||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||    W      6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||    WNW   12.5    .0    .0    .0    .0    .0    .0    .0    .0  12.5   ||
||    NW     6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||    NNW    6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3   ||
||  TOTAL   75.0    .0    .0    .0    .0    .0    .0    .0    .0  75.0   ||
||                                                                       ||
||  CALM = 25.00%                                                        ||
||  MISSING DATA =   .00%                                                ||
||-----------------------------------------------------------------------||
                                   CO  Summary Statistics for 1995
                                   Calgary East Monitoring Station
                                   Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                  ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                  ||
||-------------------------------------BY SEASON---------------------------------||
|| SEASON    MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .3      .3      .4      .4      .6     1.0     1.9     3.2     4.3     7.1    11.3 ||
|| Spring     .3      .3      .4      .4      .5      .6      .8     1.2     1.7     2.7     5.5 ||
|| Summer     .2      .3      .3      .4      .5      .6      .8     1.0     1.3     1.9     3.2 ||
|| Autumn     .2      .2      .3      .3      .4      .6     1.1     2.0     3.1     5.2    13.9 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances   ||
||           Mean       Mean     Std Dev                     1 hour        8 hour    ||
|| Winter    1.51       1.10       1.39      11.0  2148     0(0.00%)      2(0.75%)   ||
|| Spring     .74        .65        .48       5.2  2198     0(0.00%)      0(0.00%)   ||
|| Summer     .67        .61        .33       3.0  2197     0(0.00%)      0(0.00%)   ||
|| Autumn     .99        .73       1.05      13.7  2174     3(0.14%)      2(0.74%)   ||
||-------------------------------------BY MONTH----------------------------------||
|| MONTH     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .3      .4      .5      .6      .8     1.5     2.6     4.0     5.3     8.3    11.3 ||
|| Feb        .3      .3      .4      .4      .5      .8     1.3     2.4     3.5     6.2     7.8 ||
|| Mar        .3      .3      .4      .4      .5      .7     1.1     1.7     2.0     3.8     5.5 ||
|| Apr        .3      .3      .4      .4      .4      .5      .7      .9     1.1     2.1     4.1 ||
|| May        .3      .3      .4      .4      .5      .6      .7     1.0     1.3     2.0     2.7 ||
|| Jun        .2      .3      .3      .4      .5      .6      .8     1.1     1.3     2.2     3.2 ||
|| Jul        .3      .3      .3      .4      .5      .6      .8     1.0     1.3     1.7     2.5 ||
|| Aug        .3      .3      .3      .4      .4      .6      .8     1.1     1.4     1.9     3.0 ||
|| Sep        .2      .2      .3      .4      .5      .6      .9     1.4     1.8     2.6     4.1 ||
|| Oct        .2      .2      .3      .3      .4      .6     1.0     1.7     2.4     4.4     4.9 ||
|| Nov        .2      .2      .3      .3      .5      .8     1.5     3.2     4.5     6.4    13.9 ||
|| Dec        .3      .3      .4      .4      .5      .9     1.8     2.8     3.8     5.8     7.4 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances   ||
||           Mean       Mean     Std Dev                     1 hour        8 hour    ||
|| Jan       1.99       1.49       1.66      11.0   741     0(0.00%)      2(2.17%)   ||
|| Feb       1.16        .87       1.12       7.5   670     0(0.00%)      0(0.00%)   ||
|| Mar        .93        .78        .64       5.2   740     0(0.00%)      0(0.00%)   ||
|| Apr        .63        .58        .33       3.8   717     0(0.00%)      0(0.00%)   ||
|| May        .67        .61        .33       2.4   741     0(0.00%)      0(0.00%)   ||
|| Jun        .70        .63        .35       3.0   715     0(0.00%)      0(0.00%)   ||
|| Jul        .66        .61        .29       2.2   741     0(0.00%)      0(0.00%)   ||
|| Aug        .66        .60        .34       2.7   741     0(0.00%)      0(0.00%)   ||
|| Sep        .78        .67        .50       3.9   717     0(0.00%)      0(0.00%)   ||
|| Oct        .86        .66        .78       4.7   740     0(0.00%)      0(0.00%)   ||
|| Nov       1.33        .88       1.52      13.7   717     3(0.42%)      2(2.25%)   ||
|| Dec       1.33       1.00       1.15       7.1   737     0(0.00%)      0(0.00%)   ||
||-------------------------------------BY YEAR-----------------------------------||
|| YEAR      MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .2      .3      .3      .4      .5      .7     1.0     1.9     2.8     5.1    13.9 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances   ||
||           Mean       Mean     Std Dev                     1 hour        8 hour    ||
|| 1995       .97        .75        .97      13.7  8717     3(0.03%)      4(0.37%)   ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                        Wind Summary for 1995
                    Calgary East Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for CO  **
||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                         Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        0     0     0     0     0     0     0     0     0     0  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      1     0     0     0     0     0     0     0     0     1  ||
||    E        0     0     0     0     0     0     0     0     0     0  ||
||    ESE      0     0     0     0     0     0     0     0     0     0  ||
||    SE       0     0     0     0     0     0     0     0     0     0  ||
||    SSE      0     0     0     0     0     0     0     0     0     0  ||
||    S        0     0     0     0     0     0     0     0     0     0  ||
||    SSW      2     0     0     0     0     0     0     0     0     2  ||
||    SW       0     0     0     0     0     0     0     0     0     0  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        0     0     0     0     0     0     0     0     0     0  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL      3     0     0     0     0     0     0     0     0     3  ||
||                                                                   ||
||  CALM =      0 hours                                              ||
||  MISSING DATA =     0 hours                                       ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                   ||
||                         Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE   33.3    .0    .0    .0    .0    .0    .0    .0    .0  33.3  ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSW   66.7    .0    .0    .0    .0    .0    .0    .0    .0  66.7  ||
||    SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL  100.0    .0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
||                                                                   ||
||  CALM =    .00%                                                   ||
||  MISSING DATA =   .00%                                            ||
||-------------------------------------------------------------------||
                          Wind Summary for 1995
                      Calgary East Monitoring Station
  ** calculation is for exceedances of the 8-hour guideline  for CO  **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                            Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        1     0     0     0     0     0     0     0     0     1  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      1     0     0     0     0     0     0     0     0     1  ||
||    E        0     0     0     0     0     0     0     0     0     0  ||
||    ESE      6     0     0     0     0     0     0     0     0     6  ||
||    SE       3     0     0     0     0     0     0     0     0     3  ||
||    SSE      2     0     0     0     0     0     0     0     0     2  ||
||    S        4     0     0     0     0     0     0     0     0     4  ||
||    SSW      2     0     0     0     0     0     0     0     0     2  ||
||    SW       3     0     0     0     0     0     0     0     0     3  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        6     0     0     0     0     0     0     0     0     6  ||
||    WNW      2     0     1     0     0     0     0     0     0     3  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL     30     0     1     0     0     0     0     0     0    31  ||
||                                                                      ||
||  CALM =      1 hours                                                 ||
||  MISSING DATA =     0 hours                                          ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                            Wind Speed (km/h)                         ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE    3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1  ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ESE   18.8    .0    .0    .0    .0    .0    .0    .0    .0  18.8  ||
||    SE     9.4    .0    .0    .0    .0    .0    .0    .0    .0   9.4  ||
||    SSE    6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3  ||
||    S     12.5    .0    .0    .0    .0    .0    .0    .0    .0  12.5  ||
||    SSW    6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3  ||
||    SW     9.4    .0    .0    .0    .0    .0    .0    .0    .0   9.4  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W     18.8    .0    .0    .0    .0    .0    .0    .0    .0  18.8  ||
||    WNW    6.3    .0   3.1    .0    .0    .0    .0    .0    .0   9.4  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL   93.8    .0   3.1    .0    .0    .0    .0    .0    .0  96.9  ||
||                                                                      ||
||  CALM =  3.13%                                                       ||
||  MISSING DATA =   .00%                                               ||
||-----------------------------------------------------------------------||
                          CO  Summary Statistics for 1995
                          Fort Saskatchewan Monitoring Station
                          Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                 ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                 ||
||-------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .0     .1      .2      .2      .3      .5     1.0     1.7     2.1     3.1     6.0 ||
|| Spring     .0     .2      .3      .3      .3      .3      .4      .6      .8     1.4     3.5 ||
|| Summer     .1     .2      .3      .3      .3      .4      .5      .6      .7     1.0     1.5 ||
|| Autumn     .0     .0      .1      .1      .2      .4      .5      .8     1.1     1.9     3.7 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances ||
||           Mean       Mean     Std Dev                     1 hour       8 hour  ||
|| Winter     .76        .53        .68      6.0  2152     0(0.00%)     0(0.00%)  ||
|| Spring     .41        .37        .25      3.5  2201     0(0.00%)     0(0.00%)  ||
|| Summer     .43        .41        .15      1.4  2201     0(0.00%)     0(0.00%)  ||
|| Autumn     .45        .28        .38      3.7  2139     0(0.00%)     0(0.00%)  ||
||-------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .2     .3      .3      .3      .4      .7     1.4     2.1     2.5     3.8     6.0 ||
|| Feb        .0     .1      .1      .2      .2      .3      .5     1.0     1.4     2.2     2.9 ||
|| Mar        .0     .1      .3      .3      .3      .4      .5      .9     1.2     1.9     3.5 ||
|| Apr        .2     .2      .3      .3      .3      .3      .4      .5      .6     1.2     2.5 ||
|| May        .2     .2      .2      .3      .3      .3      .4      .5      .5      .9     1.5 ||
|| Jun        .1     .2      .3      .3      .3      .4      .5      .6      .8     1.2     1.5 ||
|| Jul        .2     .3      .3      .3      .3      .4      .5      .6      .7      .9     1.2 ||
|| Aug        .2     .3      .3      .3      .3      .4      .4      .6      .7      .9     1.3 ||
|| Sep        .2     .2      .2      .3      .3      .4      .6      .8     1.1     2.3     3.5 ||
|| Oct        .0     .1      .1      .1      .3      .4      .6      .8     1.1     1.5     3.7 ||
|| Nov        .0     .0      .1      .1      .2      .2      .4      .8     1.3     2.0     3.3 ||
|| Dec        .1     .1      .1      .2      .3      .5     1.1     1.7     2.1     3.2     5.0 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances ||
||           Mean       Mean     Std Dev                     1 hour       8 hour  ||
|| Jan       1.00        .77        .78      5.8   741     0(0.00%)     0(0.00%)  ||
|| Feb        .47        .34        .41      2.9   667     0(0.00%)     0(0.00%)  ||
|| Mar        .50        .41        .35      3.5   744     0(0.00%)     0(0.00%)  ||
|| Apr        .37        .35        .17      2.3   720     0(0.00%)     0(0.00%)  ||
|| May        .35        .34        .13      1.3   737     0(0.00%)     0(0.00%)  ||
|| Jun        .44        .41        .18      1.4   720     0(0.00%)     0(0.00%)  ||
|| Jul        .42        .41        .13      1.0   744     0(0.00%)     0(0.00%)  ||
|| Aug        .42        .40        .13      1.1   737     0(0.00%)     0(0.00%)  ||
|| Sep        .49        .42        .37      3.3   717     0(0.00%)     0(0.00%)  ||
|| Oct        .49        .35        .35      3.7   702     0(0.00%)     0(0.00%)  ||
|| Nov        .37        .20        .41      3.3   720     0(0.00%)     0(0.00%)  ||
|| Dec        .77        .54        .68      4.9   744     0(0.00%)     0(0.00%)  ||
||-------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0     .1      .2      .2      .3      .4      .5      .9     1.4     2.4     6.0 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances ||
||           Mean       Mean     Std Dev                     1 hour       8 hour  ||
|| 1995       .51        .39        .44      6.0  8693     0(0.00%)     0(0.00%)  ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                               CO  Summary Statistics for 1995
                               Fort McMurray Monitoring Station
                               Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  = 13.0 PPM                                    ||
|| Ambient 8-hour average guideline  =  5.0 PPM                                    ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .2      .2      .2      .2      .2      .3      .5      .8     1.1     1.8     2.9 ||
|| Spring     .2      .2      .2      .2      .2      .3      .3      .5      .6     1.2     2.5 ||
|| Summer     .0      .2      .2      .2      .3      .3      .4      .6      .8     1.2     3.1 ||
|| Autumn     .1      .1      .2      .2      .2      .3      .4      .7      .9     1.4     2.9 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                    1 hour       8 hour      ||
|| Winter     .43       .36        .33       2.7  2157     0(0.00%)     0(0.00%)    ||
|| Spring     .32       .29        .20       2.3  2186     0(0.00%)     0(0.00%)    ||
|| Summer     .39       .34        .21       3.1  2205     0(0.00%)     0(0.00%)    ||
|| Autumn     .37       .31        .27       2.8  1899     0(0.00%)     0(0.00%)    ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .2      .2      .2      .2      .3      .4      .5      .7      .8     1.3     1.7 ||
|| Feb        .2      .2      .2      .2      .2      .3      .4      .7     1.1     2.1     2.9 ||
|| Mar        .2      .2      .2      .2      .2      .3      .4      .6      .7     1.5     2.5 ||
|| Apr        .2      .2      .2      .2      .2      .3      .3      .4      .4      .8     1.2 ||
|| May        .2      .2      .2      .2      .2      .3      .3      .5      .6     1.2     2.4 ||
|| Jun        .0      .2      .2      .2      .3      .4      .6      .8     1.0     1.6     2.2 ||
|| Jul        .1      .2      .2      .2      .3      .3      .4      .5      .6     1.0     3.1 ||
|| Aug        .0      .2      .2      .2      .3      .3      .4      .5      .6      .9     1.2 ||
|| Sep        .2      .2      .2      .2      .2      .3      .5      .7      .9     1.5     2.0 ||
|| Oct        .1      .1      .1      .2      .2      .3      .4      .7     1.0     1.7     2.9 ||
|| Nov        .1      .1      .1      .2      .2      .2      .4      .6      .9     1.1     1.4 ||
|| Dec        .2      .2      .2      .2      .2      .3      .5      .9     1.4     2.3     2.9 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                    1 hour       8 hour      ||
|| Jan        .42       .37        .22       1.5   743     0(0.00%)     0(0.00%)    ||
|| Feb        .40       .33        .34       2.7   670     0(0.00%)     0(0.00%)    ||
|| Mar        .36       .31        .25       2.3   744     0(0.00%)     0(0.00%)    ||
|| Apr        .28       .27        .12       1.0   720     0(0.00%)     0(0.00%)    ||
|| May        .31       .28        .20       2.2   722     0(0.00%)     0(0.00%)    ||
|| Jun        .48       .42        .27       2.2   720     0(0.00%)     0(0.00%)    ||
|| Jul        .36       .34        .18       3.0   741     0(0.00%)     0(0.00%)    ||
|| Aug        .34       .29        .14       1.2   744     0(0.00%)     0(0.00%)    ||
|| Sep        .39       .34        .26       1.8   720     0(0.00%)     0(0.00%)    ||
|| Oct        .38       .31        .31       2.8   744     0(0.00%)     0(0.00%)    ||
|| Nov        .32       .27        .22       1.3   435     0(0.00%)     0(0.00%)    ||
|| Dec        .48       .39        .41       2.7   744     0(0.00%)     0(0.00%)    ||
||-------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0      .2      .2      .2      .2      .3      .4      .6      .8     1.5     3.1 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                    1 hour       8 hour      ||
|| 1995       .38       .32        .26       3.1  8447     0(0.00%)     0(0.00%)    ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

Annual Average Concentration
Year: 1995
Pollutant: CO [ppm]

Year	EDMU	ERMU	EIMU	CDMU	CRMU	CIMU	Fort Sask.	Fort McMurray
1976	1.57	1.86	0.64	2.11	1.25	1.78	*	*
1977	2.01	1.50	0.36	2.36	1.37	1.60	*	*
1978	2.05	1.34	0.33	2.77	1.17	1.51	*	
1979	3.28	1.75	0.39	2.88	1.05	1.68	*	0.40a
1980	2.97	1.78	0.66	2.34	1.08	1.25	*	0.37
1981	2.18	1.62	1.01	2.33	1.04	1.96	b	0.48
1982	1.89	1.04	0.91	2.01	0.99	1.37	0.89	0.54
1983	1.78	1.22	0.85	2.10	1.09	1.33	0.71	b
1984	1.63	1.15	0.78	1.84	0.93	1.22	0.65	0.32a
1985	1.51	0.95	0.73	1.68	0.82	1.12	0.58	0.20
1986	1.55	1.27	0.57	1.90	0.89	1.34	0.79	0.34
1987	1.67	1.48	0.61	1.69	0.75	1.30	0.98	0.54
1988	1.50	1.27	0.56	1.68	0.72	1.39	0.74	0.54
1989	1.65	1.16	0.57	1.48	0.68	1.21	0.44a	0.46
1990	1.42	1.07	0.54	1.26	0.62	1.06	0.45	0.59
1991	1.30	1.13	0.54	1.35	0.74	1.13	0.44	0.51
1992	1.15	1.08	0.53	1.20	0.71	1.00	0.45	0.50
1993	1.12	1.05	0.52	1.12	0.64	0.99	0.39	0.35
1994	0.94	0.94	0.50	1.07	0.64	0.94	0.54	0.40
1995	0.90	0.88	0.48	1.02	0.62	0.97	0.51	0.38

a 50% to 75% of data available
b less than 50% of data available
* no data available

```
                           CO2 Summary Statistics for 1995
                           Calgary Central Monitoring Station
                           Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| No guidelines                                                                     ||
||--------------------------------------BY SEASON------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    363.    370.    380.   384.    391.    401.    422.    454.    479.    543.    635.||
|| Spring    358.    362.    368.   371.    377.    384.    394.    409.    421.    453.    998.||
|| Summer    333.    340.    346.   350.    356.    365.    379.    398.    412.    431.    452.||
|| Autumn    350.    354.    359.   363.    371.    382.    400.    422.    439.    476.    575.||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                                             ||
|| Winter   411.6      410.4       33.3     272.  2145              n/a              ||
|| Spring   389.0      388.3       28.7     640.  2186              n/a              ||
|| Summer   370.1      369.5       19.7     119.  2187              n/a              ||
|| Autumn   388.6      387.8       25.9     225.  2168              n/a              ||
||--------------------------------------BY MONTH-------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       363.    373.    385.   389.    397.    411.    436.    466.    488.    547.    591.||
|| Feb       366.    369.    376.   381.    388.    394.    409.    439.    467.    518.    566.||
|| Mar       366.    367.    372.   376.    382.    392.    406.    426.    446.    495.    998.||
|| Apr       361.    365.    371.   373.    378.    384.    390.    400.    407.    433.    451.||
|| May       358.    360.    364.   367.    372.    380.    388.    398.    407.    425.    435.||
|| Jun       344.    349.    354.   358.    364.    371.    384.    407.    418.    432.    447.||
|| Jul       333.    338.    345.   347.    354.    361.    377.    398.    412.    431.    452.||
|| Aug       335.    340.    346.   349.    353.    361.    373.    394.    403.    428.    445.||
|| Sep       350.    352.    357.   359.    365.    373.    390.    411.    419.    436.    473.||
|| Oct       353.    354.    361.   364.    371.    379.    391.    413.    427.    450.    467.||
|| Nov       355.    359.    369.   374.    382.    397.    413.    446.    464.    506.    575.||
|| Dec       373.    376.    380.   383.    390.    399.    417.    449.    484.    564.    635.||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                                             ||
|| Jan      420.2      418.9       33.8     228.   740              n/a              ||
|| Feb      403.5      402.6       28.2     200.   666              n/a              ||
|| Mar      399.9      398.3       44.3     632.   734              n/a              ||
|| Apr      385.7      385.5       12.2      90.   715              n/a              ||
|| May      381.4      381.2       12.8      77.   737              n/a              ||
|| Jun      376.6      376.2       18.7     103.   714              n/a              ||
|| Jul      367.7      367.1       20.4     119.   733              n/a              ||
|| Aug      366.1      365.6       18.3     110.   740              n/a              ||
|| Sep      379.5      379.0       19.9     123.   714              n/a              ||
|| Oct      383.7      383.1       20.2     114.   739              n/a              ||
|| Nov      402.8      401.7       30.1     220.   715              n/a              ||
|| Dec      410.3      409.0       35.0     262.   739              n/a              ||
||---------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      333.    346.    354.   360.    371.    385.    401.    423.    443.    494.    998.||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                                             ||
|| 1995     389.7      388.6       31.0     665.  8686              n/a              ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                         CO2 Summary Statistics for 1995
                         Springbank Airport Monitoring Station
                         Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| No guidelines                                                                     ||
||-------------------------------------BY SEASON-------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   348.   350.   355.   358.   363.   370.   378.   386.   392.   414.   483.||
|| Spring   342.   346.   350.   353.   358.   363.   370.   379.   387.   407.   428.||
|| Summer   322.   327.   332.   335.   341.   356.   391.   436.   460.   499.   598.||
|| Autumn   335.   339.   342.   345.   354.   367.   380.   394.   406.   442.   523.||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean      Mean      Std Dev                                             ||
|| Winter   371.5     371.3        12.7     135.  2134              n/a              ||
|| Spring   364.9     364.7        11.9      86.  2193              n/a              ||
|| Summer   371.6     369.5        41.6     276.  2196              n/a              ||
|| Autumn   369.4     368.8        21.1     188.  2167              n/a              ||
||-------------------------------------BY MONTH--------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      350.   352.   356.   359.   363.   368.   374.   385.   394.   420.   483.||
|| Feb      348.   349.   351.   355.   359.   364.   368.   372.   374.   381.   423.||
|| Mar      351.   351.   354.   355.   359.   364.   371.   377.   380.   393.   405.||
|| Apr      342.   349.   353.   356.   359.   363.   368.   375.   379.   387.   392.||
|| May      342.   343.   347.   349.   353.   361.   373.   392.   400.   422.   428.||
|| Jun      322.   327.   332.   336.   342.   355.   383.   427.   448.   488.   530.||
|| Jul      322.   326.   329.   333.   338.   357.   401.   457.   483.   516.   598.||
|| Aug      330.   331.   334.   336.   342.   357.   388.   427.   445.   483.   531.||
|| Sep      335.   337.   340.   342.   348.   364.   391.   416.   430.   463.   523.||
|| Oct      340.   340.   342.   345.   349.   359.   370.   378.   385.   397.   408.||
|| Nov      352.   353.   359.   363.   367.   374.   383.   390.   394.   403.   426.||
|| Dec      353.   357.   364.   367.   374.   378.   384.   391.   398.   423.   458.||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                                             ||
|| Jan      370.3     370.1        12.9     133.   730              n/a              ||
|| Feb      363.7     363.6         7.5      75.   666              n/a              ||
|| Mar      365.4     365.3         8.5      54.   737              n/a              ||
|| Apr      364.0     363.9         7.8      50.   715              n/a              ||
|| May      365.4     365.0        16.9      86.   741              n/a              ||
|| Jun      368.5     366.8        37.2     208.   715              n/a              ||
|| Jul      376.2     373.2        49.5     276.   740              n/a              ||
|| Aug      370.0     368.3        36.2     201.   741              n/a              ||
|| Sep      372.8     371.6        30.3     188.   716              n/a              ||
|| Oct      360.5     360.3        13.3      68.   738              n/a              ||
|| Nov      375.3     375.1        11.0      74.   713              n/a              ||
|| Dec      379.6     379.5        11.3     105.   738              n/a              ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     322.   331.   339.   344.   356.   365.   377.   394.   417.   470.   598.||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                                             ||
|| 1995     369.3     368.6        25.1     276.  8690              n/a              ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
||------------------------------||
||Annual Average Concentration  ||
||Year: 1995                    ||
||Pollutant: CO2 [ppm]          ||
||------------------------------||
||   Year     | CDMU  Springbank ||
||            |         Airport  ||
||-----------+------------------||
||   1976     |  *        *      ||
||   1977     |  *        *      ||
||   1978     |  *        *      ||
||   1979     |  *        *      ||
||   1980     |  *        *      ||
||   1981     |  *        *      ||
||   1982     |  *        *      ||
||   1983     |  *        *      ||
||   1984     |  *        *      ||
||   1985     |  *        *      ||
||   1986     |  *        *      ||
||   1987     |  *        *      ||
||   1988     |  *        *      ||
||   1989     |  *        *      ||
||   1990     |  *        *      ||
||   1991     |  376        366 ||
||   1992     |  390        371 ||
||   1993     |  394        366 ||
||   1994     |  393        373 ||
||   1995     |  389        369 ||
||------------------------------||

a  50% to 75% of data available
b  less than 50% of data available
*  no data available
```

```
                              COH Summary Statistics for 1995
                              Edmonton Central Monitoring Station
                              Units are COH units
||-------------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                          ||
||------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .0     .0      .0      .0      .1      .2      .3      .6      .7     1.3     1.7 ||
|| Spring     .0     .0      .0      .0      .1      .1      .2      .3      .4      .8     1.6 ||
|| Summer     .0     .0      .0      .0      .1      .2      .3      .4      .5      .8     1.6 ||
|| Autumn     .0     .0      .0      .0      .1      .1      .2      .3      .4      .8     2.5 ||
||                                                                                       ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||          Mean       Mean     Std Dev                                                  ||
|| Winter     .25        .10        .25       1.7  2160     44(2.04%)                   ||
|| Spring     .16        .05        .16       1.6  2158      6(0.28%)                   ||
|| Summer     .19        .07        .16       1.6  2036      4(0.20%)                   ||
|| Autumn     .16        .05        .17       2.5  2139     14(0.65%)                   ||
||------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .0     .0      .1      .1      .1      .3      .5      .8     1.0     1.5     1.7 ||
|| Feb        .0     .0      .0      .0      .1      .2      .3      .4      .5      .9     1.3 ||
|| Mar        .0     .0      .0      .0      .1      .1      .2      .4      .5     1.0     1.6 ||
|| Apr        .0     .0      .0      .0      .0      .1      .2      .3      .4      .7     1.4 ||
|| May        .0     .0      .0      .0      .1      .1      .2      .3      .4      .7     1.4 ||
|| Jun        .0     .0      .0      .0      .1      .2      .3      .5      .7      .9     1.6 ||
|| Jul        .0     .0      .0      .0      .1      .2      .2      .3      .4      .5      .7 ||
|| Aug        .0     .0      .0      .0      .1      .1      .2      .3      .4      .7     1.1 ||
|| Sep        .0     .0      .0      .0      .1      .2      .3      .4      .6     1.2     2.5 ||
|| Oct        .0     .0      .0      .0      .0      .1      .2      .3      .4      .6     1.1 ||
|| Nov        .0     .0      .0      .0      .1      .1      .2      .3      .4      .6     1.1 ||
|| Dec        .0     .0      .0      .0      .1      .1      .2      .4      .5     1.2     1.5 ||
||                                                                                       ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||          Mean       Mean     Std Dev                                                  ||
|| Jan        .37        .22        .30       1.7   744     30(4.03%)                   ||
|| Feb        .20        .07        .18       1.3   672      3(0.45%)                   ||
|| Mar        .19        .08        .18       1.6   744      4(0.54%)                   ||
|| Apr        .14        .04        .14       1.4   670      1(0.15%)                   ||
|| May        .15        .05        .14       1.4   744      1(0.13%)                   ||
|| Jun        .24        .10        .20       1.6   690      3(0.43%)                   ||
|| Jul        .17        .06        .12        .7   674      0(0.00%)                   ||
|| Aug        .16        .06        .14       1.1   672      1(0.15%)                   ||
|| Sep        .21        .07        .23       2.5   688     12(1.74%)                   ||
|| Oct        .14        .04        .13       1.1   731      1(0.14%)                   ||
|| Nov        .15        .04        .14       1.1   720      1(0.14%)                   ||
|| Dec        .19        .06        .21       1.5   744     11(1.48%)                   ||
||-------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0     .0      .0      .0      .1      .1      .2      .4      .5     1.0     2.5 ||
||                                                                                       ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||          Mean       Mean     Std Dev                                                  ||
|| 1995       .19        .06        .19       2.5  8493     68(0.80%)                   ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                              COH Summary Statistics for 1995
                              Edmonton Northwest Monitoring Station
                              Units are COH units
||------------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                        ||
||------------------------------------BY SEASON---------------------------------------||
|| SEASON   MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    .0      .0      .0      .0      .1      .3      .5      .9     1.2     2.0     3.2 ||
|| Spring    .0      .0      .0      .0      .0      .1      .2      .4      .6     1.0     2.6 ||
|| Summer    .0      .0      .0      .0      .1      .1      .2      .4      .5      .9     1.6 ||
|| Autumn    .0      .0      .0      .0      .1      .2      .3      .5      .8     1.5     2.4 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                 ||
|| Winter    .40       .13        .42       3.2  1980   148(7.47%)                     ||
|| Spring    .17       .03        .21       2.6  2103    14(0.67%)                     ||
|| Summer    .17       .04        .18       1.6  2086     7(0.34%)                     ||
|| Autumn    .25       .08        .29       2.4  2085    60(2.88%)                     ||
||------------------------------------BY MONTH----------------------------------------||
|| MONTH    MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       .0      .0      .0      .1      .2      .4      .7     1.1     1.4     2.2     3.2 ||
|| Feb       .0      .0      .0      .0      .1      .2      .3      .6      .9     1.4     2.3 ||
|| Mar       .0      .0      .0      .0      .1      .1      .3      .6      .7     1.3     2.6 ||
|| Apr       .0      .0      .0      .0      .0      .1      .2      .3      .4      .7     1.0 ||
|| May       .0      .0      .0      .0      .1      .1      .2      .4      .5      .8     1.1 ||
|| Jun       .0      .0      .0      .0      .1      .2      .3      .5      .6      .9     1.0 ||
|| Jul       .0      .0      .0      .0      .1      .1      .2      .3      .4      .7     1.2 ||
|| Aug       .0      .0      .0      .0      .0      .1      .2      .3      .5     1.0     1.6 ||
|| Sep       .0      .0      .0      .0      .1      .2      .3      .6      .9     1.7     2.4 ||
|| Oct       .0      .0      .0      .0      .1      .1      .3      .5      .7     1.4     1.8 ||
|| Nov       .0      .0      .1      .1      .1      .2      .3      .6      .9     1.5     2.4 ||
|| Dec       .0      .0      .0      .1      .1      .3      .5      .9     1.2     2.1     3.0 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                 ||
|| Jan       .51       .21        .47       3.2   744    88(11.83%)                    ||
|| Feb       .26       .05        .30       2.3   505    14(2.77%)                     ||
|| Mar       .22       .04        .27       2.6   716    13(1.82%)                     ||
|| Apr       .13       .02        .14       1.0   668     0(0.00%)                     ||
|| May       .17       .05        .16       1.1   719     1(0.14%)                     ||
|| Jun       .23       .08        .20       1.0   710     0(0.00%)                     ||
|| Jul       .15       .05        .14       1.2   634     1(0.16%)                     ||
|| Aug       .14       .02        .19       1.6   742     6(0.81%)                     ||
|| Sep       .26       .07        .32       2.4   632    21(3.32%)                     ||
|| Oct       .22       .05        .25       1.8   733    13(1.77%)                     ||
|| Nov       .27       .16        .29       2.4   720    26(3.61%)                     ||
|| Dec       .41       .17        .41       3.0   731    46(6.29%)                     ||
||--------------------------------------BY YEAR---------------------------------------||
|| YEAR     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      .0      .0      .0      .0      .1      .2      .3      .6      .8     1.4     3.2 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                 ||
|| 1995      .25       .06        .30       3.2  8254   229(2.77%)                     ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                 Edmonton Northwest Monitoring Station
        ** calculation is for values greater than 1.0 COH unit **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir     1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N         7     0     0     0     0     0     0     0     0     7   ||
||   NNE       4     0     0     0     0     0     0     0     0     4   ||
||   NE        7     2     0     0     0     0     0     0     0     9   ||
||   ENE       5     3     0     0     0     0     0     0     0     8   ||
||   E         5     3     0     0     0     0     0     0     0     8   ||
||   ESE       5     3     2     0     0     0     0     0     0    10   ||
||   SE        6     2     0     0     0     0     0     0     0     8   ||
||   SSE       7     7     0     0     0     0     0     0     0    14   ||
||   S        15    10     1     0     0     0     0     0     0    26   ||
||   SSW      13    21     0     0     0     0     0     0     0    34   ||
||   SW       12    30     1     0     0     0     0     0     0    43   ||
||   WSW      11    14     0     0     0     0     0     0     0    25   ||
||   W        13     1     0     0     0     0     0     0     0    14   ||
||   WNW       4     1     0     0     0     0     0     0     0     5   ||
||   NW        2     0     0     0     0     0     0     0     0     2   ||
||   NNW       6     0     0     0     0     0     0     0     0     6   ||
|| TOTAL     122    97     4     0     0     0     0     0     0   223   ||
||                                                                       ||
|| CALM =      6 hours                                                   ||
|| MISSING DATA =      0 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir     1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N       3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1   ||
||   NNE     1.7    .0    .0    .0    .0    .0    .0    .0    .0   1.7   ||
||   NE      3.1    .9    .0    .0    .0    .0    .0    .0    .0   3.9   ||
||   ENE     2.2   1.3    .0    .0    .0    .0    .0    .0    .0   3.5   ||
||   E       2.2   1.3    .0    .0    .0    .0    .0    .0    .0   3.5   ||
||   ESE     2.2   1.3    .9    .0    .0    .0    .0    .0    .0   4.4   ||
||   SE      2.6    .9    .0    .0    .0    .0    .0    .0    .0   3.5   ||
||   SSE     3.1   3.1    .0    .0    .0    .0    .0    .0    .0   6.1   ||
||   S       6.6   4.4    .4    .0    .0    .0    .0    .0    .0  11.4   ||
||   SSW     5.7   9.2    .0    .0    .0    .0    .0    .0    .0  14.8   ||
||   SW      5.2  13.1    .4    .0    .0    .0    .0    .0    .0  18.8   ||
||   WSW     4.8   6.1    .0    .0    .0    .0    .0    .0    .0  10.9   ||
||   W       5.7    .4    .0    .0    .0    .0    .0    .0    .0   6.1   ||
||   WNW     1.7    .4    .0    .0    .0    .0    .0    .0    .0   2.2   ||
||   NW       .9    .0    .0    .0    .0    .0    .0    .0    .0    .9   ||
||   NNW     2.6    .0    .0    .0    .0    .0    .0    .0    .0   2.6   ||
|| TOTAL    53.3  42.4   1.7    .0    .0    .0    .0    .0    .0  97.4   ||
||                                                                       ||
|| CALM =  2.62%                                                         ||
|| MISSING DATA =   .00%                                                 ||
||-----------------------------------------------------------------------||
                            COH Summary Statistics for 1995
                            Edmonton East Monitoring Station
                            Units are COH units
||------------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                        ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter    .0     .0     .0     .0     .1     .2     .5    1.0    1.3    2.1    3.4 ||
|| Spring    .0     .0     .0     .0     .0     .1     .2     .3     .5     .9    1.6 ||
|| Summer    .0     .0     .0     .0     .0     .1     .2     .4     .6    1.0    2.1 ||
|| Autumn    .0     .0     .0     .0     .1     .1     .3     .6     .8    1.7    4.4 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic  Range  N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                ||
|| Winter     .37       .05        .46      3.4  1736  164(9.45%)                     ||
|| Spring     .13       .01        .18      1.6  2175   13(0.60%)                     ||
|| Summer     .18       .03        .20      2.1  2162   15(0.69%)                     ||
|| Autumn     .24       .04        .34      4.4  1463   44(3.01%)                     ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan       .0     .0     .0     .0     .1     .3     .7    1.2    1.5    2.1    2.7 ||
|| Feb       .0     .0     .0     .0     .0     .1     .3     .6     .9    1.7    3.4 ||
|| Mar       .0     .0     .0     .0     .0     .1     .2     .4     .6    1.0    1.4 ||
|| Apr       .0     .0     .0     .0     .0     .1     .1     .3     .4     .9    1.6 ||
|| May       .0     .0     .0     .0     .0     .1     .2     .3     .5     .8    1.2 ||
|| Jun       .0     .0     .0     .0     .1     .2     .3     .5     .8    1.1    2.1 ||
|| Jul       .0     .0     .0     .0     .0     .1     .2     .4     .5     .7     .9 ||
|| Aug       .0     .0     .0     .0     .0     .1     .2     .4     .6    1.0    1.2 ||
|| Sep       .0     .0     .0     .0     .1     .1     .3     .6     .9    2.2    4.4 ||
|| Oct       .0     .0     .0     .0     .0     .1     .3     .5     .7    1.3    1.8 ||
|| Nov       *      *      *      *      *      *      *      *      *      *      *  ||
|| Dec       .0     .0     .1     .1     .2     .3     .7    1.0    1.4    2.1    3.0 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic  Range  N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                ||
|| Jan        .46       .06        .50      2.7   736  106(14.40%)                    ||
|| Feb        .23       .02        .36      3.4   671   26(3.87%)                     ||
|| Mar        .16       .02        .20      1.4   744    6(0.81%)                     ||
|| Apr        .11       .01        .17      1.6   697    4(0.57%)                     ||
|| May        .13       .01        .17      1.2   734    3(0.41%)                     ||
|| Jun        .23       .04        .25      2.1   674   11(1.63%)                     ||
|| Jul        .16       .04        .15       .9   744    0(0.00%)                     ||
|| Aug        .16       .02        .19      1.2   744    4(0.54%)                     ||
|| Sep        .27       .05        .41      4.4   720   32(4.44%)                     ||
|| Oct        .20       .03        .25      1.8   743   12(1.62%)                     ||
|| Nov         *         *           *        *     *                *                ||
|| Dec        .47       .23        .45      3.0   329   32(9.73%)                     ||
||--------------------------------------BY YEAR---------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995      .0     .0     .0     .0     .0     .1     .3     .6     .8    1.5    4.4 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic  Range  N   Number of Values > 1.0 COH unit ||
||          Mean      Mean     Std Dev                                                ||
|| 1995       .22       .02        .32      4.4  7536  236(3.13%)                     ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          Wind Summary for 1995
                    Edmonton East Monitoring Station
         ** calculation is for values greater than 1.0 COH unit **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                       ||
||                         Wind Speed (km/h)                             ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL    ||
||   N        5     1     1     1     0     0     0     0     0     8    ||
||   NNE      7     3     0     0     0     0     0     0     0    10    ||
||   NE       2     1     0     0     0     0     0     0     0     3    ||
||   ENE      4     2     0     1     0     0     0     0     0     7    ||
||   E        7     2     1     0     0     0     0     0     0    10    ||
||   ESE      8    18    10     2     0     0     0     0     0    38    ||
||   SE      13    21     7     0     0     0     0     0     0    41    ||
||   SSE     13     2     1     0     0     0     0     0     0    16    ||
||   S        5     2     0     0     0     0     0     0     0     7    ||
||   SSW     10    10     2     0     0     0     0     0     0    22    ||
||   SW       7     5     1     0     0     0     0     0     0    13    ||
||   WSW      8     0     0     0     0     0     0     0     0     8    ||
||   W        9     1     0     0     0     0     0     0     0    10    ||
||   WNW      9     0     0     0     0     0     0     0     0     9    ||
||   NW      15     0     1     0     0     0     0     0     0    16    ||
||   NNW      5     0     0     0     0     0     0     0     0     5    ||
|| TOTAL    127    68    24     4     0     0     0     0     0   223    ||
||                                                                       ||
|| CALM =    13 hours                                                    ||
|| MISSING DATA =     0 hours                                            ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                       ||
||                         Wind Speed (km/h)                             ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL    ||
||   N      2.1    .4    .4    .4    .0    .0    .0    .0    .0   3.4    ||
||   NNE    3.0   1.3    .0    .0    .0    .0    .0    .0    .0   4.2    ||
||   NE      .8    .4    .0    .0    .0    .0    .0    .0    .0   1.3    ||
||   ENE    1.7    .8    .0    .4    .0    .0    .0    .0    .0   3.0    ||
||   E      3.0    .8    .4    .0    .0    .0    .0    .0    .0   4.2    ||
||   ESE    3.4   7.6   4.2    .8    .0    .0    .0    .0    .0  16.1    ||
||   SE     5.5   8.9   3.0    .0    .0    .0    .0    .0    .0  17.4    ||
||   SSE    5.5    .8    .4    .0    .0    .0    .0    .0    .0   6.8    ||
||   S      2.1    .8    .0    .0    .0    .0    .0    .0    .0   3.0    ||
||   SSW    4.2   4.2    .8    .0    .0    .0    .0    .0    .0   9.3    ||
||   SW     3.0   2.1    .4    .0    .0    .0    .0    .0    .0   5.5    ||
||   WSW    3.4    .0    .0    .0    .0    .0    .0    .0    .0   3.4    ||
||   W      3.8    .4    .0    .0    .0    .0    .0    .0    .0   4.2    ||
||   WNW    3.8    .0    .0    .0    .0    .0    .0    .0    .0   3.8    ||
||   NW     6.4    .0    .4    .0    .0    .0    .0    .0    .0   6.8    ||
||   NNW    2.1    .0    .0    .0    .0    .0    .0    .0    .0   2.1    ||
|| TOTAL   53.8  28.8  10.2   1.7    .0    .0    .0    .0    .0  94.5    ||
||                                                                       ||
|| CALM =  5.51%                                                         ||
|| MISSING DATA =    .00%                                                ||
||-----------------------------------------------------------------------||
                          COH Summary Statistics for 1995
                          Calgary Central Monitoring Station
                          Units are COH units
||----------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                       ||
||-----------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .0      .0      .0      .0      .1      .2      .3      .6      .9     1.4     3.5 ||
|| Spring     .0      .0      .0      .0      .1      .1      .2      .4      .5      .8     1.2 ||
|| Summer     .0      .0      .0      .0      .1      .2      .3      .4      .5      .7     1.1 ||
|| Autumn     .0      .0      .0      .0      .1      .2      .3      .6      .8     1.3     3.2 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N    Number of Values > 1.0 COH unit ||
||           Mean       Mean      Std Dev                                            ||
|| Winter     .28        .10        .29       3.5  2101      59(2.81%)               ||
|| Spring     .17        .06        .15       1.2  2192       3(0.14%)               ||
|| Summer     .19        .07        .15       1.1  2116       2(0.09%)               ||
|| Autumn     .27        .11        .27       3.2  2113      47(2.22%)               ||
||-----------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .0      .0      .0      .0      .1      .2      .5      .8     1.0     1.6     2.5 ||
|| Feb        .0      .0      .0      .0      .1      .2      .3      .5      .7     1.3     3.5 ||
|| Mar        .0      .0      .0      .0      .1      .2      .3      .4      .6      .9     1.2 ||
|| Apr        .0      .0      .0      .0      .0      .1      .2      .3      .4      .6      .8 ||
|| May        .0      .0      .0      .0      .1      .1      .2      .3      .4      .6     1.0 ||
|| Jun        .0      .0      .0      .0      .1      .2      .3      .4      .5      .6      .8 ||
|| Jul        .0      .0      .0      .0      .1      .2      .2      .3      .4      .6      .8 ||
|| Aug        .0      .0      .0      .0      .1      .2      .3      .4      .5      .9     1.1 ||
|| Sep        .0      .0      .0      .1      .1      .2      .3      .5      .7     1.1     1.6 ||
|| Oct        .0      .0      .0      .0      .1      .2      .3      .5      .6     1.0     1.6 ||
|| Nov        .0      .0      .0      .1      .1      .2      .4      .7     1.0     1.5     3.2 ||
|| Dec        .0      .0      .0      .1      .1      .2      .3      .5      .9     1.5     1.9 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N    Number of Values > 1.0 COH unit ||
||           Mean       Mean      Std Dev                                            ||
|| Jan        .33        .11        .32       2.5   744     26(3.49%)                ||
|| Feb        .25        .10        .27       3.5   669     11(1.64%)                ||
|| Mar        .22        .10        .18       1.2   735      3(0.41%)                ||
|| Apr        .14        .04        .13        .8   718      0(0.00%)                ||
|| May        .16        .07        .13       1.0   739      0(0.00%)                ||
|| Jun        .19        .08        .14        .8   719      0(0.00%)                ||
|| Jul        .17        .06        .13        .8   719      0(0.00%)                ||
|| Aug        .22        .08        .18       1.1   678      2(0.29%)                ||
|| Sep        .26        .11        .23       1.6   660     12(1.82%)                ||
|| Oct        .22        .08        .21       1.6   733      6(0.82%)                ||
|| Nov        .33        .14        .33       3.2   720     29(4.03%)                ||
|| Dec        .25        .11        .28       1.9   688     22(3.20%)                ||
||------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0      .0      .0      .0      .1      .2      .3      .5      .6     1.1     3.5 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N    Number of Values > 1.0 COH unit ||
||           Mean       Mean      Std Dev                                            ||
|| 1995       .23        .08        .23       3.5  8522    111(1.30%)                ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          COH Summary Statistics for 1995
                          Calgary Northwest Monitoring Station
                          Units are COH units
||------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                  ||
||------------------------------------BY SEASON---------------------------------||
|| SEASON    MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter     .0    .0     .0     .0     .0     .1     .2     .4     .6    1.2    1.8 ||
|| Spring     .0    .0     .0     .0     .0     .1     .1     .2     .3     .4    1.0 ||
|| Summer     .0    .0     .0     .0     .0     .1     .1     .2     .3     .5     .9 ||
|| Autumn     .0    .0     .0     .0     .1     .1     .2     .4     .6    1.1    1.8 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean      Mean     Std Dev                                         ||
|| Winter     .17       .02        .22       1.8  2145    30(1.40%)             ||
|| Spring     .08       .01        .10       1.0  2129     0(0.00%)             ||
|| Summer     .11       .04        .10        .9  2208     0(0.00%)             ||
|| Autumn     .19       .05        .21       1.8  1998    23(1.15%)             ||
||------------------------------------BY MONTH----------------------------------||
|| MONTH     MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan        .0    .0     .0     .0     .0     .1     .3     .5     .7    1.3    1.7 ||
|| Feb        .0    .0     .0     .0     .0     .1     .1     .2     .4     .8    1.4 ||
|| Mar        .0    .0     .0     .0     .0     .1     .2     .3     .3     .6     .9 ||
|| Apr        .0    .0     .0     .0     .0     .1     .1     .1     .2     .3     .6 ||
|| May        .0    .0     .0     .0     .0     .1     .1     .2     .2     .4    1.0 ||
|| Jun        .0    .0     .0     .0     .1     .1     .2     .3     .3     .4     .9 ||
|| Jul        .0    .0     .0     .0     .1     .1     .1     .2     .3     .4     .6 ||
|| Aug        .0    .0     .0     .0     .0     .1     .1     .2     .3     .5     .8 ||
|| Sep        .0    .0     .0     .0     .1     .1     .2     .3     .4     .7    1.4 ||
|| Oct        .0    .0     .0     .0     .0     .1     .2     .4     .5     .9    1.2 ||
|| Nov        .0    .0     .0     .0     .1     .2     .3     .5     .8    1.5    1.8 ||
|| Dec        .0    .0     .0     .0     .1     .1     .2     .4     .6    1.3    1.8 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean      Mean     Std Dev                                         ||
|| Jan        .20       .02        .26       1.7   744    16(2.15%)             ||
|| Feb        .11       .01        .15       1.4   672     1(0.15%)             ||
|| Mar        .12       .02        .12        .9   671     0(0.00%)             ||
|| Apr        .06       .01        .06        .6   720     0(0.00%)             ||
|| May        .08       .01        .09       1.0   738     0(0.00%)             ||
|| Jun        .13       .05        .10        .9   720     0(0.00%)             ||
|| Jul        .11       .04        .08        .6   744     0(0.00%)             ||
|| Aug        .10       .02        .10        .8   744     0(0.00%)             ||
|| Sep        .15       .05        .14       1.4   681     1(0.15%)             ||
|| Oct        .16       .03        .19       1.2   657     5(0.76%)             ||
|| Nov        .25       .09        .28       1.8   660    17(2.58%)             ||
|| Dec        .19       .07        .23       1.8   729    13(1.78%)             ||
||-------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995       .0    .0     .0     .0     .0     .1     .2     .3     .4     .9    1.8 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean      Mean     Std Dev                                         ||
|| 1995       .14       .02        .17       1.8  8480    53(0.63%)             ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                  Calgary Northwest Monitoring Station
       ** calculation is for values greater than 1.0 COH unit **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||   N        5     0     0     0     0     0     0     0     0     5   ||
||   NNE      5     0     1     0     0     0     0     0     0     6   ||
||   NE       4     0     0     0     0     0     0     0     0     4   ||
||   ENE      2     0     0     0     0     0     0     0     0     2   ||
||   E        2     0     0     0     0     0     0     0     0     2   ||
||   ESE      1     0     0     0     0     0     0     0     0     1   ||
||   SE       4     0     0     0     0     0     0     0     0     4   ||
||   SSE      3     0     0     0     0     0     0     0     0     3   ||
||   S        0     0     0     0     0     0     0     0     0     0   ||
||   SSW      0     0     0     0     0     0     0     0     0     0   ||
||   SW       1     0     0     0     0     0     0     0     0     1   ||
||   WSW      1     0     0     0     0     0     0     0     0     1   ||
||   W        3     0     0     0     0     0     0     0     0     3   ||
||   WNW      6     0     0     0     0     0     0     0     0     6   ||
||   NW       5     2     0     0     0     0     0     0     0     7   ||
||   NNW      3     0     0     0     0     0     0     0     0     3   ||
|| TOTAL     45     2     1     0     0     0     0     0     0    48   ||
||                                                                       ||
|| CALM =      5 hours                                                   ||
|| MISSING DATA =      0 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||   N      9.4    .0    .0    .0    .0    .0    .0    .0    .0   9.4   ||
||   NNE    9.4    .0   1.9    .0    .0    .0    .0    .0    .0  11.3   ||
||   NE     7.5    .0    .0    .0    .0    .0    .0    .0    .0   7.5   ||
||   ENE    3.8    .0    .0    .0    .0    .0    .0    .0    .0   3.8   ||
||   E      3.8    .0    .0    .0    .0    .0    .0    .0    .0   3.8   ||
||   ESE    1.9    .0    .0    .0    .0    .0    .0    .0    .0   1.9   ||
||   SE     7.5    .0    .0    .0    .0    .0    .0    .0    .0   7.5   ||
||   SSE    5.7    .0    .0    .0    .0    .0    .0    .0    .0   5.7   ||
||   S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||   SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0   ||
||   SW     1.9    .0    .0    .0    .0    .0    .0    .0    .0   1.9   ||
||   WSW    1.9    .0    .0    .0    .0    .0    .0    .0    .0   1.9   ||
||   W      5.7    .0    .0    .0    .0    .0    .0    .0    .0   5.7   ||
||   WNW   11.3    .0    .0    .0    .0    .0    .0    .0    .0  11.3   ||
||   NW     9.4   3.8    .0    .0    .0    .0    .0    .0    .0  13.2   ||
||   NNW    5.7    .0    .0    .0    .0    .0    .0    .0    .0   5.7   ||
|| TOTAL   84.9   3.8   1.9    .0    .0    .0    .0    .0    .0  90.6   ||
||                                                                       ||
|| CALM =  9.43%                                                         ||
|| MISSING DATA =    .00%                                                ||
||-----------------------------------------------------------------------||
                              COH Summary Statistics for 1995
                              Calgary East Monitoring Station
                              Units are COH units
||----------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                       ||
||-------------------------------------BY SEASON------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     .0      .0      .0      .1      .1      .2      .5      .9     1.2     1.9     2.7 ||
|| Spring     .0      .0      .0      .0      .1      .1      .2      .4      .5      .8     1.5 ||
|| Summer     .0      .0      .0      .0      .1      .1      .2      .4      .5      .7     1.1 ||
|| Autumn     .0      .0      .0      .0      .1      .2      .4      .8     1.2     2.3     5.4 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean       Mean     Std Dev                                             ||
|| Winter     .39        .14        .41      2.7  1977   139(7.03%)                  ||
|| Spring     .16        .04        .17      1.5  2187     9(0.41%)                  ||
|| Summer     .18        .06        .16      1.1  2192     3(0.14%)                  ||
|| Autumn     .34        .08        .46      5.4  2184   126(5.77%)                  ||
||-------------------------------------BY MONTH-------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan        .0      .0      .0      .1      .1      .3      .6     1.0     1.4     2.2     2.7 ||
|| Feb        .0      .0      .0      .0      .1      .2      .3      .6      .9     1.6     2.3 ||
|| Mar        .0      .0      .0      .0      .1      .2      .3      .5      .6     1.1     1.5 ||
|| Apr        .0      .0      .0      .0      .0      .1      .2      .3      .4      .5      .9 ||
|| May        .0      .0      .0      .0      .0      .1      .2      .3      .4      .8     1.1 ||
|| Jun        .0      .0      .0      .0      .1      .2      .3      .5      .6      .9     1.1 ||
|| Jul        .0      .0      .0      .0      .1      .1      .2      .3      .4      .6      .8 ||
|| Aug        .0      .0      .0      .0      .1      .1      .2      .3      .5      .7     1.1 ||
|| Sep        .0      .0      .0      .1      .1      .2      .3      .6      .7     1.0     1.7 ||
|| Oct        .0      .0      .0      .0      .1      .2      .4      .7     1.0     2.0     2.6 ||
|| Nov        .0      .0      .0      .0      .1      .2      .5     1.2     1.9     3.1     5.4 ||
|| Dec        .0      .0      .0      .1      .1      .3      .5     1.0     1.3     1.9     2.4 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean       Mean     Std Dev                                             ||
|| Jan        .46        .20        .45      2.7   744    65(8.74%)                  ||
|| Feb        .26        .09        .30      2.3   496    18(3.63%)                  ||
|| Mar        .23        .11        .20      1.5   744     7(0.94%)                  ||
|| Apr        .12        .02        .12       .9   699     0(0.00%)                  ||
|| May        .14        .03        .15      1.1   744     2(0.27%)                  ||
|| Jun        .24        .10        .19      1.1   704     2(0.28%)                  ||
|| Jul        .15        .06        .12       .8   744     0(0.00%)                  ||
|| Aug        .15        .04        .15      1.1   744     1(0.13%)                  ||
|| Sep        .26        .13        .23      1.7   720     6(0.83%)                  ||
|| Oct        .29        .05        .38      2.6   744    34(4.57%)                  ||
|| Nov        .46        .09        .64      5.4   720    86(11.94%)                 ||
|| Dec        .39        .13        .41      2.4   737    56(7.60%)                  ||
||--------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       .0      .0      .0      .0      .1      .2      .3      .6      .9     1.7     5.4 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N   Number of Values > 1.0 COH unit ||
||           Mean       Mean     Std Dev                                             ||
|| 1995       .26        .07        .34      5.4  8540   277(3.24%)                  ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                     Calgary East Monitoring Station
             ** calculation is for values greater than 1.0 COH unit **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N        2     1     0     1     0     0     0     0     0     4  ||
||   NNE      2     0     0     0     0     0     0     0     0     2  ||
||   NE       3     0     0     0     0     0     0     0     0     3  ||
||   ENE      5     0     0     0     0     0     0     0     0     5  ||
||   E        8     2     2     0     0     0     0     0     0    12  ||
||   ESE     31     5     0     0     0     0     0     0     0    36  ||
||   SE      23     1     0     0     0     0     0     0     0    24  ||
||   SSE     27     0     0     0     0     0     0     0     0    27  ||
||   S       55     2     0     0     0     0     0     0     0    57  ||
||   SSW     34     2     1     0     0     0     0     0     0    37  ||
||   SW      20     0     0     0     0     0     0     0     0    20  ||
||   WSW     11     0     0     0     0     0     0     0     0    11  ||
||   W       16     0     0     0     0     0     0     0     0    16  ||
||   WNW      5     0     0     0     0     0     0     0     0     5  ||
||   NW       6     0     0     0     0     0     0     0     0     6  ||
||   NNW      2     0     0     0     0     0     0     0     0     2  ||
|| TOTAL    250    13     3     1     0     0     0     0     0   267  ||
||                                                                       ||
|| CALM =     10 hours                                                   ||
|| MISSING DATA =     0 hours                                            ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N       .7    .4    .0    .4    .0    .0    .0    .0    .0   1.4  ||
||   NNE     .7    .0    .0    .0    .0    .0    .0    .0    .0    .7  ||
||   NE     1.1    .0    .0    .0    .0    .0    .0    .0    .0   1.1  ||
||   ENE    1.8    .0    .0    .0    .0    .0    .0    .0    .0   1.8  ||
||   E      2.9    .7    .7    .0    .0    .0    .0    .0    .0   4.3  ||
||   ESE   11.2   1.8    .0    .0    .0    .0    .0    .0    .0  13.0  ||
||   SE     8.3    .4    .0    .0    .0    .0    .0    .0    .0   8.7  ||
||   SSE    9.7    .0    .0    .0    .0    .0    .0    .0    .0   9.7  ||
||   S     19.9    .7    .0    .0    .0    .0    .0    .0    .0  20.6  ||
||   SSW   12.3    .7    .4    .0    .0    .0    .0    .0    .0  13.4  ||
||   SW     7.2    .0    .0    .0    .0    .0    .0    .0    .0   7.2  ||
||   WSW    4.0    .0    .0    .0    .0    .0    .0    .0    .0   4.0  ||
||   W      5.8    .0    .0    .0    .0    .0    .0    .0    .0   5.8  ||
||   WNW    1.8    .0    .0    .0    .0    .0    .0    .0    .0   1.8  ||
||   NW     2.2    .0    .0    .0    .0    .0    .0    .0    .0   2.2  ||
||   NNW     .7    .0    .0    .0    .0    .0    .0    .0    .0    .7  ||
|| TOTAL   90.3   4.7   1.1    .4    .0    .0    .0    .0    .0  96.4  ||
||                                                                       ||
|| CALM =  3.61%                                                         ||
|| MISSING DATA =   .00%                                                 ||
||-----------------------------------------------------------------------||
                              COH Summary Statistics for 1995
                              Fort Saskatchewan Monitoring Station
                              Units are COH units
||-----------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                 ||
||-------------------------------------BY SEASON-------------------------------||
|| SEASON    MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter     .0     .0     .0     .0     .1     .1     .3     .6     .7    1.2    1.9 ||
|| Spring     .0     .0     .0     .0     .0     .1     .1     .2     .2     .4     .6 ||
|| Summer     .0     .0     .0     .0     .0     .1     .2     .3     .4     .7    1.1 ||
|| Autumn     .0     .0     .0     .0     .0     .1     .2     .4     .5     .9    2.2 ||
||                                                                             ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                        ||
|| Winter     .23       .04        .25       1.9   2159    30(1.39%)            ||
|| Spring     .08       .01        .09        .6   2156     0(0.00%)            ||
|| Summer     .13       .01        .15       1.1   2164     1(0.05%)            ||
|| Autumn     .15       .02        .19       2.2   2182    13(0.60%)            ||
||-------------------------------------BY MONTH--------------------------------||
|| MONTH     MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan        .0     .0     .0     .0     .1     .2     .4     .6     .8    1.1    1.4 ||
|| Feb        .0     .0     .0     .0     .0     .1     .2     .3     .4     .6     .9 ||
|| Mar        .0     .0     .0     .0     .0     .1     .1     .2     .3     .4     .6 ||
|| Apr        .0     .0     .0     .0     .0     .0     .1     .1     .2     .3     .6 ||
|| May        .0     .0     .0     .0     .0     .1     .1     .2     .2     .4     .6 ||
|| Jun        .0     .0     .0     .0     .0     .1     .3     .5     .6     .9    1.0 ||
|| Jul        .0     .0     .0     .0     .0     .1     .1     .2     .3     .5     .7 ||
|| Aug        .0     .0     .0     .0     .0     .1     .1     .2     .3     .6    1.1 ||
|| Sep        .0     .0     .0     .0     .0     .1     .2     .4     .6    1.2    2.2 ||
|| Oct        .0     .0     .0     .0     .0     .1     .2     .3     .4     .7     .9 ||
|| Nov        .0     .0     .0     .0     .0     .1     .2     .3     .5     .9    1.2 ||
|| Dec        .0     .0     .0     .0     .1     .2     .4     .7     .9    1.5    1.9 ||
||                                                                             ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                        ||
|| Jan        .28       .07        .26       1.4    744     8(1.08%)            ||
|| Feb        .12       .02        .13        .9    671     0(0.00%)            ||
|| Mar        .10       .02        .09        .6    731     0(0.00%)            ||
|| Apr        .05       .00        .07        .6    685     0(0.00%)            ||
|| May        .08       .01        .09        .6    740     0(0.00%)            ||
|| Jun        .19       .02        .20       1.0    692     0(0.00%)            ||
|| Jul        .11       .03        .10        .7    744     0(0.00%)            ||
|| Aug        .09       .01        .11       1.1    728     1(0.14%)            ||
|| Sep        .18       .02        .24       2.2    720    10(1.39%)            ||
|| Oct        .13       .01        .14        .9    742     0(0.00%)            ||
|| Nov        .14       .02        .18       1.2    720     3(0.42%)            ||
|| Dec        .28       .05        .30       1.9    744    22(2.96%)            ||
||-------------------------------------BY YEAR---------------------------------||
|| YEAR      MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995       .0     .0     .0     .0     .0     .1     .2     .4     .5     .9    2.2 ||
||                                                                             ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                        ||
|| 1995       .14       .01        .19       2.2   8661    44(0.51%)            ||
||-----------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                        Wind Summary for 1995
                   Fort Saskatchewan Monitoring Station
        ** calculation is for values greater than 1.0 COH unit **
||------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                  ||
||                          Wind Speed (km/h)                       ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        3     0     0     0     0     0     0     0     0     3  ||
||    NNE      1     0     0     0     0     0     0     0     0     1  ||
||    NE       3     0     0     0     0     0     0     0     0     3  ||
||    ENE      4     0     0     0     0     0     0     0     0     4  ||
||    E        1     0     0     0     0     0     0     0     0     1  ||
||    ESE      3     0     0     0     0     0     0     0     0     3  ||
||    SE       4     0     0     0     0     0     0     0     0     4  ||
||    SSE      2     1     0     0     0     0     0     0     0     3  ||
||    S        4     0     0     0     0     0     0     0     0     4  ||
||    SSW      3     0     0     0     0     0     0     0     0     3  ||
||    SW       3     0     0     0     0     0     0     0     0     3  ||
||    WSW      2     0     0     0     0     0     0     0     0     2  ||
||    W        4     0     0     0     0     0     0     0     0     4  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       2     0     0     0     0     0     0     0     0     2  ||
||    NNW      2     0     0     0     0     0     0     0     0     2  ||
||  TOTAL     41     1     0     0     0     0     0     0     0    42  ||
||                                                                  ||
||  CALM =      2 hours                                             ||
||  MISSING DATA =     0 hours                                      ||
||------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                  ||
||                          Wind Speed (km/h)                       ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N      6.8    .0    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    NNE    2.3    .0    .0    .0    .0    .0    .0    .0    .0   2.3  ||
||    NE     6.8    .0    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    ENE    9.1    .0    .0    .0    .0    .0    .0    .0    .0   9.1  ||
||    E      2.3    .0    .0    .0    .0    .0    .0    .0    .0   2.3  ||
||    ESE    6.8    .0    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    SE     9.1    .0    .0    .0    .0    .0    .0    .0    .0   9.1  ||
||    SSE    4.5   2.3    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    S      9.1    .0    .0    .0    .0    .0    .0    .0    .0   9.1  ||
||    SSW    6.8    .0    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    SW     6.8    .0    .0    .0    .0    .0    .0    .0    .0   6.8  ||
||    WSW    4.5    .0    .0    .0    .0    .0    .0    .0    .0   4.5  ||
||    W      9.1    .0    .0    .0    .0    .0    .0    .0    .0   9.1  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW     4.5    .0    .0    .0    .0    .0    .0    .0    .0   4.5  ||
||    NNW    4.5    .0    .0    .0    .0    .0    .0    .0    .0   4.5  ||
||  TOTAL   93.2   2.3    .0    .0    .0    .0    .0    .0    .0  95.5  ||
||                                                                  ||
||  CALM =  4.55%                                                   ||
||  MISSING DATA =   .00%                                           ||
||------------------------------------------------------------------||
                              COH Summary Statistics for 1995
                              Fort McMurray Monitoring Station
                              Units are COH units
||-------------------------------------------------------------------------------||
|| Ambient guideline  = 90% of values per month < 1.0 COH unit                   ||
||------------------------------------BY SEASON----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter     .0     .0     .0     .0     .0     .1     .1     .2     .3     .5    1.3 ||
|| Spring     .0     .0     .0     .0     .0     .0     .1     .2     .3     .4     .8 ||
|| Summer     .0     .0     .0     .0     .0     .1     .1     .3     .5     .9    2.1 ||
|| Autumn     .0     .0     .0     .0     .0     .1     .1     .2     .2     .4    1.8 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                         ||
|| Winter     .08       .01        .11       1.3  2047     2(0.10%)              ||
|| Spring     .07       .00        .10        .8   952     0(0.00%)              ||
|| Summer     .12       .00        .20       2.1  1642    14(0.85%)              ||
|| Autumn     .07       .01        .09       1.8  2091     1(0.05%)              ||
||------------------------------------BY MONTH-----------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan        .0     .0     .0     .0     .0     .0     .1     .1     .2     .4     .8 ||
|| Feb        .0     .0     .0     .0     .0     .1     .1     .2     .3     .5     .6 ||
|| Mar        .0     .0     .0     .0     .0     .0     .1     .2     .3     .5     .8 ||
|| Apr        .0     .0     .0     .0     .0     .0     .1     .2     .2     .4     .4 ||
|| May        .0     .0     .0     .0     .0     .0     .1     .1     .0     .0     .1 ||
|| Jun        .0     .0     .0     .0     .0     .2     .3     .7     .9    1.7    2.1 ||
|| Jul        .0     .0     .0     .0     .0     .0     .1     .2     .2     .4     .6 ||
|| Aug        .0     .0     .0     .0     .0     .1     .1     .2     .2     .3     .4 ||
|| Sep        .0     .0     .0     .0     .0     .1     .1     .2     .2     .4    1.8 ||
|| Oct        .0     .0     .0     .0     .0     .0     .1     .2     .2     .4     .7 ||
|| Nov        .0     .0     .0     .0     .0     .1     .1     .1     .2     .3     .7 ||
|| Dec        .0     .0     .0     .0     .0     .1     .1     .2     .3     .6    1.3 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                         ||
|| Jan        .05       .00        .08        .8   744     0(0.00%)              ||
|| Feb        .09       .01        .11        .6   559     0(0.00%)              ||
|| Mar        .08       .00        .10        .8   730     0(0.00%)              ||
|| Apr        .07       .00        .08        .4   217     0(0.00%)              ||
|| May        .02       .00        .04        .1     5     0(0.00%)              ||
|| Jun        .26       .02        .33       2.1   425    14(3.29%)              ||
|| Jul        .08       .00        .09        .6   597     0(0.00%)              ||
|| Aug        .07       .01        .07        .4   620     0(0.00%)              ||
|| Sep        .08       .01        .11       1.8   667     1(0.15%)              ||
|| Oct        .07       .00        .09        .7   744     0(0.00%)              ||
|| Nov        .07       .01        .08        .7   680     0(0.00%)              ||
|| Dec        .11       .03        .12       1.3   744     2(0.27%)              ||
||------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995       .0     .0     .0     .0     .0     .0     .1     .2     .3     .7    2.1 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N   Number of Values > 1.0 COH unit ||
||           Mean      Mean      Std Dev                                         ||
|| 1995       .09       .00        .13       2.1  6732    17(0.25%)              ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          Wind Summary for 1995
                     Fort McMurray Monitoring Station
          ** calculation is for values greater than 1.0 COH unit **
||----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                            Wind Speed (km/h)                         ||
||   Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N         0     0     0     0     0     0     0     0     0     0  ||
||   NNE       0     0     0     0     0     0     0     0     0     0  ||
||   NE        0     0     0     0     0     0     0     0     0     0  ||
||   ENE       0     0     0     0     0     0     0     0     0     0  ||
||   E         0     0     0     0     0     0     0     0     0     0  ||
||   ESE       2     0     0     0     0     0     0     0     0     2  ||
||   SE        4     2     0     0     0     0     0     0     0     6  ||
||   SSE       2     1     2     0     0     0     0     0     0     5  ||
||   S         0     1     0     0     0     0     0     0     0     1  ||
||   SSW       1     0     0     0     0     0     0     0     0     1  ||
||   SW        1     0     0     0     0     0     0     0     0     1  ||
||   WSW       0     0     0     0     0     0     0     0     0     0  ||
||   W         0     0     0     0     0     0     0     0     0     0  ||
||   WNW       0     0     0     0     0     0     1     0     0     1  ||
||   NW        0     0     0     0     0     0     0     0     0     0  ||
||   NNW       0     0     0     0     0     0     0     0     0     0  ||
|| TOTAL      10     4     2     0     0     0     1     0     0    17  ||
||                                                                      ||
|| CALM =      0 hours                                                  ||
|| MISSING DATA =      0 hours                                          ||
||----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                            Wind Speed (km/h)                         ||
||   Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NNE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NE       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   ENE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   E        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   ESE    11.8    .0    .0    .0    .0    .0    .0    .0    .0  11.8  ||
||   SE     23.5  11.8    .0    .0    .0    .0    .0    .0    .0  35.3  ||
||   SSE    11.8   5.9  11.8    .0    .0    .0    .0    .0    .0  29.4  ||
||   S        .0   5.9    .0    .0    .0    .0    .0    .0    .0   5.9  ||
||   SSW     5.9    .0    .0    .0    .0    .0    .0    .0    .0   5.9  ||
||   SW      5.9    .0    .0    .0    .0    .0    .0    .0    .0   5.9  ||
||   WSW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   W        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   WNW      .0    .0    .0    .0    .0    .0   5.9    .0    .0   5.9  ||
||   NW       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NNW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
|| TOTAL    58.8  23.5  11.8    .0    .0    .0   5.9    .0    .0 100.0  ||
||                                                                      ||
|| CALM =     .00%                                                      ||
|| MISSING DATA =    .00%                                               ||
||----------------------------------------------------------------------||
||--------------------------------------------------------------||
||                  Annual Average Concentration                 ||
||                  Year: 1995                                   ||
||                  Pollutant: COH [COH units]                   ||
||--------+-----------------------------------------------------||
|| Year   |   EDMU  ERMU  EIMU  CDMU  CRMU  CIMU   Fort  Fort    ||
||        |                                       Sask. McMurray ||
||--------+-----------------------------------------------------||
|| 1976   |    0.19  0.11  0.04  0.16  0.10  0.21   *      *     ||
|| 1977   |    0.20  0.12  0.09  0.19  0.11  0.23   *      *     ||
|| 1978   |    0.20  0.15  0.13  0.24  0.10  0.22   *      *     ||
|| 1979   |    0.27  0.23  0.20  0.25  0.10  0.26   *     0.04   ||
|| 1980   |    0.30  0.28  0.23  0.30  0.11  0.29   *     0.08   ||
|| 1981   |    0.37  0.29  0.22  0.41  0.14  0.33   b     0.10   ||
|| 1982   |    0.30  0.25  0.09  0.40  0.16  0.33  0.15   0.06   ||
|| 1983   |    0.25  0.24  0.17  0.33  0.11  0.31  0.12   0.03   ||
|| 1984   |    0.23  0.22  0.24  0.23  0.12  0.29  0.13   0.03   ||
|| 1985   |    0.23  0.23  0.22  0.27  0.10  0.23  0.13   0.06   ||
|| 1986   |    0.26  0.24  0.18  0.30  0.11  0.23  0.13   0.05   ||
|| 1987   |    0.23  0.27  0.17  0.32  0.11  0.28  0.14   0.07   ||
|| 1988   |    0.19  0.23  0.21  0.26  0.08  0.30  0.10   0.07   ||
|| 1989   |    0.21  0.23  0.24  0.25  0.08  0.29  0.10   0.07   ||
|| 1990   |    0.20  0.23  0.22  0.22  0.07  0.24  0.08   0.09   ||
|| 1991   |    0.22  0.24  0.23  0.22  0.05  0.23  0.10   0.05   ||
|| 1992   |    0.21  0.23  0.23  0.18  0.06  0.23  0.09   0.07   ||
|| 1993   |    0.25  0.25  0.22  0.18  0.07  0.24  0.12   0.08   ||
|| 1994   |    0.25  0.29  0.23  0.20  0.10  0.27  0.13   0.11   ||
|| 1995   |    0.19  0.25  0.22  0.23  0.14  0.26  0.14   0.09   ||
||--------+-----------------------------------------------------||

a   50% to 75% of data available
b   less than 50% of data available
*   no data available
```

```
                              H2S Summary Statistics for 1995
                              Edmonton East Monitoring Station
                              Units are PPM (parts per million)
||----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .010 PPM                                  ||
|| Ambient 24-hour average guideline  =    .003 PPM                                 ||
||------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .000   .000   .001   .001   .002   .003   .005   .022 ||
|| Spring   .000   .000   .000   .000   .000   .000   .000   .001   .001   .004   .012 ||
|| Summer   .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .006 ||
|| Autumn   .000   .000   .000   .000   .000   .000   .001   .001   .002   .005   .016 ||
||                                                                                  ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                     1 hour      24 hour      ||
|| Winter    .001       .000       .001      .022 2143     2(0.09%)     0(0.00%)     ||
|| Spring    .000       .000       .001      .012 2184     1(0.05%)     0(0.00%)     ||
|| Summer    .000       .000       .000      .006 2197     0(0.00%)     0(0.00%)     ||
|| Autumn    .001       .000       .001      .016 2166     2(0.09%)     0(0.00%)     ||
||------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .000   .000   .000   .001   .002   .003   .004   .006   .022 ||
|| Feb      .000   .000   .000   .000   .000   .000   .001   .001   .003   .006   .013 ||
|| Mar      .000   .000   .000   .000   .000   .000   .001   .002   .003   .006   .012 ||
|| Apr      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .004 ||
|| May      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .005 ||
|| Jun      .000   .000   .000   .000   .000   .000   .001   .001   .001   .003   .004 ||
|| Jul      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .006 ||
|| Aug      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .003 ||
|| Sep      .000   .000   .000   .000   .000   .000   .001   .001   .002   .005   .009 ||
|| Oct      .000   .000   .000   .000   .000   .000   .001   .001   .002   .006   .016 ||
|| Nov      .000   .000   .000   .000   .000   .000   .001   .001   .002   .003   .010 ||
|| Dec      .000   .000   .000   .000   .000   .001   .001   .002   .003   .004   .006 ||
||                                                                                  ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                     1 hour      24 hour      ||
|| Jan       .001       .000       .002      .022  738     1(0.14%)     0(0.00%)     ||
|| Feb       .001       .000       .001      .013  664     1(0.15%)     0(0.00%)     ||
|| Mar       .001       .000       .001      .012  729     1(0.14%)     0(0.00%)     ||
|| Apr       .000       .000       .000      .004  716     0(0.00%)     0(0.00%)     ||
|| May       .000       .000       .000      .005  739     0(0.00%)     0(0.00%)     ||
|| Jun       .000       .000       .001      .004  716     0(0.00%)     0(0.00%)     ||
|| Jul       .000       .000       .001      .006  740     0(0.00%)     0(0.00%)     ||
|| Aug       .000       .000       .000      .003  741     0(0.00%)     0(0.00%)     ||
|| Sep       .001       .000       .001      .009  717     0(0.00%)     0(0.00%)     ||
|| Oct       .001       .000       .001      .016  739     2(0.27%)     0(0.00%)     ||
|| Nov       .000       .000       .001      .010  710     0(0.00%)     0(0.00%)     ||
|| Dec       .001       .000       .001      .006  741     0(0.00%)     0(0.00%)     ||
||-------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .000   .000   .001   .001   .002   .005   .022 ||
||                                                                                  ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                     1 hour      24 hour      ||
|| 1995      .001       .000       .001      .022 8690     5(0.06%)     0(0.00%)     ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                        Wind Summary for 1995
                    Edmonton East Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for H2S **
||--------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                    ||
||                         Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N        0     0     0     0     0     0     0     0     0     0 ||
||    NNE      0     0     0     0     0     0     0     0     0     0 ||
||    NE       0     0     0     0     0     0     0     0     0     0 ||
||    ENE      0     2     1     0     0     0     0     0     0     3 ||
||    E        0     0     0     0     0     0     0     0     0     0 ||
||    ESE      0     0     0     0     0     0     0     0     0     0 ||
||    SE       1     0     0     0     0     0     0     0     0     1 ||
||    SSE      0     0     0     0     0     0     0     0     0     0 ||
||    S        0     0     0     0     0     0     0     0     0     0 ||
||    SSW      0     0     0     0     0     0     0     0     0     0 ||
||    SW       0     0     0     0     0     0     0     0     0     0 ||
||    WSW      0     0     0     0     0     0     0     0     0     0 ||
||    W        0     0     0     0     0     0     0     0     0     0 ||
||    WNW      0     0     0     0     0     0     0     0     0     0 ||
||    NW       1     0     0     0     0     0     0     0     0     1 ||
||    NNW      0     0     0     0     0     0     0     0     0     0 ||
||  TOTAL      2     2     1     0     0     0     0     0     0     5 ||
||                                                                    ||
||  CALM =      0 hours                                               ||
||  MISSING DATA =     0 hours                                        ||
||--------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                    ||
||                         Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    ENE     .0  40.0  20.0    .0    .0    .0    .0    .0    .0  60.0 ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    SE    20.0    .0    .0    .0    .0    .0    .0    .0    .0  20.0 ||
||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||    NW    20.0    .0    .0    .0    .0    .0    .0    .0    .0  20.0 ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0 ||
||  TOTAL   40.0  40.0  20.0    .0    .0    .0    .0    .0    .0 100.0 ||
||                                                                    ||
||  CALM =     .00%                                                   ||
||  MISSING DATA =    .00%                                            ||
||--------------------------------------------------------------------||
                              H2S Summary Statistics for 1995
                              Calgary East Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .010 PPM                                  ||
|| Ambient 24-hour average guideline  =   .003 PPM                                  ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .000   .000   .001   .001   .003   .003   .005   .010 ||
|| Spring   .000   .000   .000   .000   .000   .000   .001   .001   .002   .003   .006 ||
|| Summer   .000   .000   .000   .000   .000   .000   .000   .001   .002   .004   .014 ||
|| Autumn   .000   .000   .000   .000   .000   .001   .002   .003   .005   .009   .021 ||
||                                                                                  ||
|| SEASON Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                    1 hour       24 hour     ||
|| Winter    .001       .000       .001     .010 2134    0(0.00%)     1(1.12%)      ||
|| Spring    .000       .000       .001     .006 2196    0(0.00%)     0(0.00%)      ||
|| Summer    .000       .000       .001     .014 2194    1(0.05%)     0(0.00%)      ||
|| Autumn    .002       .000       .002     .021 2163   13(0.60%)     3(3.30%)      ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .000   .000   .000   .001   .002   .003   .004   .005   .008 ||
|| Feb      .000   .000   .000   .000   .000   .001   .001   .002   .002   .004   .005 ||
|| Mar      .000   .000   .000   .000   .000   .000   .001   .001   .002   .003   .005 ||
|| Apr      .000   .000   .000   .000   .000   .000   .001   .001   .001   .003   .006 ||
|| May      .000   .000   .000   .000   .000   .000   .001   .001   .001   .003   .005 ||
|| Jun      .000   .000   .000   .000   .000   .000   .001   .001   .001   .004   .009 ||
|| Jul      .000   .000   .000   .000   .000   .000   .000   .001   .002   .004   .008 ||
|| Aug      .000   .000   .000   .000   .000   .000   .001   .001   .003   .005   .014 ||
|| Sep      .000   .000   .000   .000   .000   .001   .002   .002   .004   .008   .014 ||
|| Oct      .000   .000   .000   .000   .000   .001   .002   .003   .005   .009   .011 ||
|| Nov      .000   .000   .000   .000   .001   .002   .002   .004   .005   .011   .021 ||
|| Dec      .000   .000   .000   .000   .000   .001   .002   .003   .003   .006   .010 ||
||                                                                                  ||
|| MONTH  Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                    1 hour       24 hour     ||
|| Jan       .001       .000       .001     .008  729    0(0.00%)     0(0.00%)      ||
|| Feb       .001       .000       .001     .005  669    0(0.00%)     0(0.00%)      ||
|| Mar       .001       .000       .001     .005  740    0(0.00%)     0(0.00%)      ||
|| Apr       .000       .000       .001     .006  717    0(0.00%)     0(0.00%)      ||
|| May       .000       .000       .001     .005  739    0(0.00%)     0(0.00%)      ||
|| Jun       .000       .000       .001     .009  713    0(0.00%)     0(0.00%)      ||
|| Jul       .000       .000       .001     .008  741    0(0.00%)     0(0.00%)      ||
|| Aug       .000       .000       .001     .014  740    1(0.14%)     0(0.00%)      ||
|| Sep       .001       .000       .002     .014  713    3(0.42%)     0(0.00%)      ||
|| Oct       .001       .000       .002     .011  741    2(0.27%)     0(0.00%)      ||
|| Nov       .002       .001       .002     .021  709    8(1.13%)     3(10.00%)     ||
|| Dec       .001       .000       .001     .010  736    0(0.00%)     1(3.23%)      ||
||--------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .000   .000   .001   .002   .003   .006   .021 ||
||                                                                                  ||
|| YEAR   Arithmetic Geometric Arithmetic  Range    N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                    1 hour       24 hour     ||
|| 1995      .001       .000       .001     .021 8687   14(0.16%)     4(1.10%)      ||
||---------------------------------------------------------------------------------||
   n/a - not applicable         * - no data
```

```
                         Wind Summary for 1995
                    Calgary East Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for H2S **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                       ||
||                        Wind Speed (km/h)                              ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40    >40 TOTAL  ||
||    N         3     0     0     0     0     0     0     0     0     3  ||
||    NNE       2     0     0     0     0     0     0     0     0     2  ||
||    NE        1     0     0     0     0     0     0     0     0     1  ||
||    ENE       1     0     0     0     0     0     0     0     0     1  ||
||    E         0     0     0     0     0     0     0     0     0     0  ||
||    ESE       0     0     0     0     0     0     0     0     0     0  ||
||    SE        1     0     0     0     0     0     0     0     0     1  ||
||    SSE       0     0     0     0     0     0     0     0     0     0  ||
||    S         0     0     0     0     0     0     0     0     0     0  ||
||    SSW       2     0     0     0     0     0     0     0     0     2  ||
||    SW        1     0     0     0     0     0     0     0     0     1  ||
||    WSW       0     0     0     0     0     0     0     0     0     0  ||
||    W         0     0     0     0     0     0     0     0     0     0  ||
||    WNW       0     0     0     0     0     0     0     0     0     0  ||
||    NW        1     0     0     0     0     0     0     0     0     1  ||
||    NNW       0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL      12     0     0     0     0     0     0     0     0    12  ||
||                                                                       ||
||  CALM =      2 hours                                                  ||
||  MISSING DATA =     0 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                       ||
||                        Wind Speed (km/h)                              ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40    >40 TOTAL  ||
||    N      21.4    .0    .0    .0    .0    .0    .0    .0    .0  21.4  ||
||    NNE    14.3    .0    .0    .0    .0    .0    .0    .0    .0  14.3  ||
||    NE      7.1    .0    .0    .0    .0    .0    .0    .0    .0   7.1  ||
||    ENE     7.1    .0    .0    .0    .0    .0    .0    .0    .0   7.1  ||
||    E        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ESE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE      7.1    .0    .0    .0    .0    .0    .0    .0    .0   7.1  ||
||    SSE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    S        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSW    14.3    .0    .0    .0    .0    .0    .0    .0    .0  14.3  ||
||    SW      7.1    .0    .0    .0    .0    .0    .0    .0    .0   7.1  ||
||    WSW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W        .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      7.1    .0    .0    .0    .0    .0    .0    .0    .0   7.1  ||
||    NNW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL    85.7    .0    .0    .0    .0    .0    .0    .0    .0  85.7  ||
||                                                                       ||
||  CALM = 14.29%                                                        ||
||  MISSING DATA =    .00%                                               ||
||-----------------------------------------------------------------------||
                         Wind Summary for 1995
                     Calgary East Monitoring Station
  ** calculation is for exceedances of the 24-hour guideline  for H2S **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N         2     2     0     0     0     0     0     0     0     4  ||
||    NNE       1     1     0     0     0     0     0     0     0     2  ||
||    NE        0     0     0     0     0     0     0     0     0     0  ||
||    ENE       3     0     0     0     0     0     0     0     0     3  ||
||    E         6     0     0     0     0     0     0     0     0     6  ||
||    ESE       7     1     0     0     0     0     0     0     0     8  ||
||    SE       13     0     0     0     0     0     0     0     0    13  ||
||    SSE       9     1     0     0     0     0     0     0     0    10  ||
||    S        12     1     0     0     0     0     0     0     0    13  ||
||    SSW       6     0     0     0     0     0     0     0     0     6  ||
||    SW       10     0     0     0     0     0     0     0     0    10  ||
||    WSW       1     0     0     0     0     0     0     0     0     1  ||
||    W         7     2     0     0     0     0     0     0     0     9  ||
||    WNW       3     0     1     0     0     0     0     0     0     4  ||
||    NW        2     0     0     0     0     0     0     0     0     2  ||
||    NNW       1     1     0     0     0     0     0     0     0     2  ||
||  TOTAL      83     9     1     0     0     0     0     0     0    93  ||
||                                                                       ||
||  CALM =      3 hours                                                  ||
||  MISSING DATA =     0 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                       ||
||                          Wind Speed (km/h)                            ||
||    Dir     1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       2.1   2.1    .0    .0    .0    .0    .0    .0    .0   4.2  ||
||    NNE     1.0   1.0    .0    .0    .0    .0    .0    .0    .0   2.1  ||
||    NE       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE     3.1    .0    .0    .0    .0    .0    .0    .0    .0   3.1  ||
||    E       6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3  ||
||    ESE     7.3   1.0    .0    .0    .0    .0    .0    .0    .0   8.3  ||
||    SE     13.5    .0    .0    .0    .0    .0    .0    .0    .0  13.5  ||
||    SSE     9.4   1.0    .0    .0    .0    .0    .0    .0    .0  10.4  ||
||    S      12.5   1.0    .0    .0    .0    .0    .0    .0    .0  13.5  ||
||    SSW     6.3    .0    .0    .0    .0    .0    .0    .0    .0   6.3  ||
||    SW     10.4    .0    .0    .0    .0    .0    .0    .0    .0  10.4  ||
||    WSW     1.0    .0    .0    .0    .0    .0    .0    .0    .0   1.0  ||
||    W       7.3   2.1    .0    .0    .0    .0    .0    .0    .0   9.4  ||
||    WNW     3.1    .0   1.0    .0    .0    .0    .0    .0    .0   4.2  ||
||    NW      2.1    .0    .0    .0    .0    .0    .0    .0    .0   2.1  ||
||    NNW     1.0   1.0    .0    .0    .0    .0    .0    .0    .0   2.1  ||
||  TOTAL    86.5   9.4   1.0    .0    .0    .0    .0    .0    .0  96.9  ||
||                                                                       ||
||  CALM =  3.13%                                                        ||
||  MISSING DATA =   .00%                                                ||
||-----------------------------------------------------------------------||
                            H2S Summary Statistics for 1995
                            Fort Saskatchewan Monitoring Station
                            Units are PPM (parts per million)
||----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .010 PPM                                   ||
|| Ambient 24-hour average guideline  =   .003 PPM                                  ||
||-------------------------------------BY SEASON------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .000    .000    .000    .000    .000    .001    .002    .002    .003    .005 ||
|| Spring   .000    .000    .000    .000    .000    .000    .000    .001    .001    .001    .003 ||
|| Summer   .000    .000    .000    .000    .000    .000    .001    .001    .001    .001    .002 ||
|| Autumn   .000    .000    .000    .000    .000    .000    .000    .001    .001    .002    .004 ||
||                                                                                  ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean      Mean     Std Dev                   1 hour      24 hour       ||
|| Winter    .001      .000        .001     .005 2150     0(0.00%)    0(0.00%)      ||
|| Spring    .000      .000        .000     .003 2189     0(0.00%)    0(0.00%)      ||
|| Summer    .000      .000        .000     .002 2194     0(0.00%)    0(0.00%)      ||
|| Autumn    .000      .000        .000     .004 2171     0(0.00%)    0(0.00%)      ||
||-------------------------------------BY MONTH-------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .000    .000    .000    .000    .001    .001    .002    .002    .003    .005 ||
|| Feb      .000    .000    .000    .000    .000    .000    .001    .001    .001    .002    .003 ||
|| Mar      .000    .000    .000    .000    .000    .000    .001    .001    .001    .002    .003 ||
|| Apr      .000    .000    .000    .000    .000    .000    .000    .000    .000    .000    .001 ||
|| May      .000    .000    .000    .000    .000    .000    .000    .000    .000    .001    .001 ||
|| Jun      .000    .000    .000    .000    .000    .000    .000    .000    .000    .001    .001 ||
|| Jul      .000    .000    .000    .000    .000    .000    .001    .001    .001    .001    .002 ||
|| Aug      .000    .000    .000    .000    .000    .000    .000    .000    .000    .001    .001 ||
|| Sep      .000    .000    .000    .000    .000    .000    .001    .001    .001    .003    .004 ||
|| Oct      .000    .000    .000    .000    .000    .000    .001    .001    .001    .002    .003 ||
|| Nov      .000    .000    .000    .000    .000    .000    .000    .001    .001    .002    .004 ||
|| Dec      .000    .000    .000    .000    .000    .001    .001    .002    .002    .003    .004 ||
||                                                                                  ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean      Mean     Std Dev                   1 hour      24 hour       ||
|| Jan       .001      .000        .001     .005  740     0(0.00%)    0(0.00%)      ||
|| Feb       .000      .000        .001     .003  666     0(0.00%)    0(0.00%)      ||
|| Mar       .000      .000        .000     .003  737     0(0.00%)    0(0.00%)      ||
|| Apr       .000      .000        .000     .001  714     0(0.00%)    0(0.00%)      ||
|| May       .000      .000        .000     .001  738     0(0.00%)    0(0.00%)      ||
|| Jun       .000      .000        .000     .001  715     0(0.00%)    0(0.00%)      ||
|| Jul       .000      .000        .000     .002  738     0(0.00%)    0(0.00%)      ||
|| Aug       .000      .000        .000     .001  741     0(0.00%)    0(0.00%)      ||
|| Sep       .000      .000        .001     .004  715     0(0.00%)    0(0.00%)      ||
|| Oct       .000      .000        .000     .003  738     0(0.00%)    0(0.00%)      ||
|| Nov       .000      .000        .000     .004  718     0(0.00%)    0(0.00%)      ||
|| Dec       .001      .000        .001     .004  744     0(0.00%)    0(0.00%)      ||
||--------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .000    .000    .000    .000    .000    .000    .001    .001    .002    .005 ||
||                                                                                  ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean      Mean     Std Dev                   1 hour      24 hour       ||
|| 1995      .000      .000        .001     .005 8704     0(0.00%)    0(0.00%)      ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                              H2S Summary Statistics for 1995
                              Fort McMurray Monitoring Station
                              Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .010 PPM                                ||
|| Ambient 24-hour average guideline  =   .003 PPM                               ||
||-------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .000   .000   .001   .001   .001   .001   .002   .003 ||
|| Spring   .000   .000   .000   .000   .000   .001   .001   .001   .001   .001   .002 ||
|| Summer   .000   .000   .000   .000   .000   .000   .001   .001   .001   .001   .002 ||
|| Autumn   .000   .000   .000   .000   .001   .001   .001   .001   .001   .001   .002 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean       Mean    Std Dev                   1 hour      24 hour    ||
|| Winter    .001       .000       .000     .003 2152    0(0.00%)    0(0.00%)   ||
|| Spring    .001       .000       .000     .002 2175    0(0.00%)    0(0.00%)   ||
|| Summer    .000       .000       .000     .002 2201    0(0.00%)    0(0.00%)   ||
|| Autumn    .001       .000       .000     .002 2064    0(0.00%)    0(0.00%)   ||
||-------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .000   .000   .000   .000   .000   .001   .001   .001   .001 ||
|| Feb      .000   .000   .000   .000   .000   .001   .001   .001   .001   .001   .002 ||
|| Mar      .000   .000   .000   .000   .000   .001   .001   .001   .001   .001   .002 ||
|| Apr      .000   .000   .000   .000   .000   .000   .000   .000   .000   .001   .001 ||
|| May      .000   .000   .000   .000   .000   .000   .000   .000   .000   .001   .001 ||
|| Jun      .000   .000   .000   .000   .000   .001   .001   .001   .001   .001   .001 ||
|| Jul      .000   .000   .000   .000   .000   .000   .001   .001   .001   .001   .002 ||
|| Aug      .000   .000   .000   .000   .000   .000   .000   .000   .001   .001   .001 ||
|| Sep      .000   .000   .000   .000   .001   .001   .001   .001   .001   .001   .002 ||
|| Oct      .000   .000   .000   .000   .001   .001   .001   .001   .001   .001   .002 ||
|| Nov      .000   .000   .000   .000   .001   .001   .001   .001   .001   .001   .002 ||
|| Dec      .000   .000   .000   .000   .000   .001   .001   .001   .001   .002   .003 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean       Mean    Std Dev                   1 hour      24 hour    ||
|| Jan       .000       .000       .000     .001  742    0(0.00%)    0(0.00%)   ||
|| Feb       .001       .000       .000     .002  669    0(0.00%)    0(0.00%)   ||
|| Mar       .001       .000       .000     .002  740    0(0.00%)    0(0.00%)   ||
|| Apr       .000       .000       .000     .001  716    0(0.00%)    0(0.00%)   ||
|| May       .000       .000       .000     .001  719    0(0.00%)    0(0.00%)   ||
|| Jun       .001       .000       .000     .001  717    0(0.00%)    0(0.00%)   ||
|| Jul       .000       .000       .000     .002  742    0(0.00%)    0(0.00%)   ||
|| Aug       .000       .000       .000     .001  742    0(0.00%)    0(0.00%)   ||
|| Sep       .001       .001       .000     .002  717    0(0.00%)    0(0.00%)   ||
|| Oct       .001       .000       .000     .002  629    0(0.00%)    0(0.00%)   ||
|| Nov       .001       .000       .000     .002  718    0(0.00%)    0(0.00%)   ||
|| Dec       .001       .000       .000     .003  741    0(0.00%)    0(0.00%)   ||
||--------------------------------------BY YEAR---------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .000   .001   .001   .001   .001   .001   .003 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean       Mean    Std Dev                   1 hour      24 hour    ||
|| 1995      .000       .000       .000     .003 8592    0(0.00%)    0(0.00%)   ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         H2S Summary Statistics for 1995
                         Fort Mackay Monitoring Station
                         Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .010 PPM                                   ||
|| Ambient 24-hour average guideline  =    .003 PPM                                  ||
||-------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .000   .000   .000   .001   .001   .001   .002   .005 ||
|| Spring   .000   .000   .000   .000   .000   .000   .000   .000   .001   .001   .002 ||
|| Summer   .000   .000   .000   .000   .000   .000   .000   .000   .001   .001   .071 ||
|| Autumn   .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .003 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| Winter    .001       .000        .001     .005 1889     0(0.00%)    0(0.00%)      ||
|| Spring    .000       .000        .000     .002 1985     0(0.00%)    0(0.00%)      ||
|| Summer    .000       .000        .002     .071 2084     2(0.10%)    1(1.15%)      ||
|| Autumn    .000       .000        .000     .003 2075     0(0.00%)    0(0.00%)      ||
||-------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .000   .000   .000   .001   .001   .001   .001   .002   .005 ||
|| Feb      .000   .000   .000   .000   .000   .000   .001   .001   .002   .003   .003 ||
|| Mar      .000   .000   .000   .000   .000   .000   .000   .000   .001   .002   .002 ||
|| Apr      .000   .000   .000   .000   .000   .000   .000   .000   .001   .002   .002 ||
|| May      .000   .000   .000   .000   .000   .000   .000   .001   .001   .001   .002 ||
|| Jun      .000   .000   .000   .000   .000   .000   .000   .000   .001   .002   .071 ||
|| Jul      .000   .000   .000   .000   .000   .000   .000   .000   .000   .001   .002 ||
|| Aug      .000   .000   .000   .000   .000   .000   .000   .000   .001   .002   .003 ||
|| Sep      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .003 ||
|| Oct      .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .003 ||
|| Nov      .000   .000   .000   .000   .000   .000   .000   .001   .001   .001   .003 ||
|| Dec      .000   .000   .000   .000   .000   .000   .001   .001   .001   .002   .003 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| Jan       .001       .000        .001     .005  741     0(0.00%)    0(0.00%)      ||
|| Feb       .000       .000        .001     .003  413     0(0.00%)    0(0.00%)      ||
|| Mar       .000       .000        .000     .002  531     0(0.00%)    0(0.00%)      ||
|| Apr       .000       .000        .000     .002  714     0(0.00%)    0(0.00%)      ||
|| May       .000       .000        .000     .002  740     0(0.00%)    0(0.00%)      ||
|| Jun       .000       .000        .004     .071  605     2(0.33%)    1(4.00%)      ||
|| Jul       .000       .000        .000     .002  737     0(0.00%)    0(0.00%)      ||
|| Aug       .000       .000        .000     .003  742     0(0.00%)    0(0.00%)      ||
|| Sep       .000       .000        .000     .003  717     0(0.00%)    0(0.00%)      ||
|| Oct       .000       .000        .000     .003  640     0(0.00%)    0(0.00%)      ||
|| Nov       .000       .000        .000     .003  718     0(0.00%)    0(0.00%)      ||
|| Dec       .001       .000        .000     .003  735     0(0.00%)    0(0.00%)      ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .000   .000   .000   .001   .001   .002   .071 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| 1995      .000       .000        .001     .071 8033     2(0.02%)    1(0.30%)      ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          Wind Summary for 1995
                      Fort MacKay Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for H2S **
||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                        Wind Speed (km/h)                          ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N        0     0     0     0     0     0     0     0     0     0  ||
||   NNE      0     0     0     0     0     0     0     0     0     0  ||
||   NE       0     0     0     0     0     0     0     0     0     0  ||
||   ENE      0     0     0     0     0     0     0     0     0     0  ||
||   E        0     0     0     0     0     0     0     0     0     0  ||
||   ESE      0     0     0     0     0     0     0     0     0     0  ||
||   SE       0     0     0     0     0     0     0     0     0     0  ||
||   SSE      0     1     0     0     0     0     0     0     0     1  ||
||   S        1     0     0     0     0     0     0     0     0     1  ||
||   SSW      0     0     0     0     0     0     0     0     0     0  ||
||   SW       0     0     0     0     0     0     0     0     0     0  ||
||   WSW      0     0     0     0     0     0     0     0     0     0  ||
||   W        0     0     0     0     0     0     0     0     0     0  ||
||   WNW      0     0     0     0     0     0     0     0     0     0  ||
||   NW       0     0     0     0     0     0     0     0     0     0  ||
||   NNW      0     0     0     0     0     0     0     0     0     0  ||
|| TOTAL      1     1     0     0     0     0     0     0     0     2  ||
||                                                                   ||
|| CALM =      0 hours                                               ||
|| MISSING DATA =     0 hours                                        ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
||                                                                   ||
||                        Wind Speed (km/h)                          ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||   N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   ENE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   SSE     .0  50.0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||   S     50.0    .0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||   SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||   NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
|| TOTAL   50.0  50.0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
||                                                                   ||
|| CALM =   .00%                                                     ||
|| MISSING DATA =   .00%                                             ||
||-------------------------------------------------------------------||
                        Wind Summary for 1995
                     Fort MacKay Monitoring Station
 ** calculation is for exceedances of the 24-hour guideline  for H2S **
||--------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                           Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        0     0     0     0     0     0     0     0     0     0  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      2     0     0     0     0     0     0     0     0     2  ||
||    E        1     0     0     0     0     0     0     0     0     1  ||
||    ESE      0     0     0     0     0     0     0     0     0     0  ||
||    SE       2     0     0     0     0     0     0     0     0     2  ||
||    SSE      2     1     0     0     0     0     0     0     0     3  ||
||    S        4     0     0     0     0     0     0     0     0     4  ||
||    SSW      8     0     1     0     0     0     0     0     0     9  ||
||    SW       1     1     1     0     0     0     0     0     0     3  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        0     0     0     0     0     0     0     0     0     0  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL     20     2     2     0     0     0     0     0     0    24  ||
||                                                                      ||
||  CALM =      0 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||--------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                           Wind Speed (km/h)                          ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE    8.3    .0    .0    .0    .0    .0    .0    .0    .0   8.3  ||
||    E      4.2    .0    .0    .0    .0    .0    .0    .0    .0   4.2  ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE     8.3    .0    .0    .0    .0    .0    .0    .0    .0   8.3  ||
||    SSE    8.3   4.2    .0    .0    .0    .0    .0    .0    .0  12.5  ||
||    S     16.7    .0    .0    .0    .0    .0    .0    .0    .0  16.7  ||
||    SSW   33.3    .0   4.2    .0    .0    .0    .0    .0    .0  37.5  ||
||    SW     4.2   4.2   4.2    .0    .0    .0    .0    .0    .0  12.5  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL   83.3   8.3   8.3    .0    .0    .0    .0    .0    .0 100.0  ||
||                                                                      ||
||  CALM =    .00%                                                      ||
||  MISSING DATA =    .00%                                              ||
||--------------------------------------------------------------------||
```

Annual Average Concentration
Year: 1995
Pollutant: H2S [ppm]

Year	EIMU	CIMU	Fort Sask.	Fort McMurray	Fort Mackay
1976	*	*	*	*	*
1977	*	*	*	*	*
1978	*	*	*	*	*
1979	*	*	*	*	*
1980	*	*	*	*	*
1981	*	*	b	*	*
1982	*	*	0.000	*	*
1983	*	*	0.001	b	b
1984	*	*	0.000	0.000a	0.000
1985	*	*	0.000	0.000	0.000
1986	*	0.001	0.001	0.000	0.000
1987	*	0.001	0.001	0.000	0.000
1988	*	0.001	0.001	0.000	0.000
1989	*	0.001	0.001a	0.000	0.001
1990	*	0.001	0.001	0.000	0.000
1991	0.001	0.001	0.001	0.000	0.000
1992	0.001	0.001	0.001	0.000	0.000
1993	0.001	0.001	0.000	0.000	0.000
1994	0.001	0.001	0.000	0.000	0.000
1995	0.001	0.001	0.000	0.000	0.000

a 50% to 75% of data available
b less than 50% of data available
* no data available

```
                            NO2 Summary Statistics for 1995
                            Edmonton Central Monitoring Station
                            Units are PPM (parts per million)
||-----------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .210 PPM                              ||
|| Ambient 24-hour average guideline  =   .110 PPM                             ||
|| Ambient annual average guideline  =   .030 PPM                              ||
||-------------------------------------BY SEASON-------------------------------||
|| SEASON   MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .005   .012   .017   .021   .027   .035   .043   .052   .060   .081   .119 ||
|| Spring   .004   .009   .012   .015   .019   .026   .035   .044   .050   .068   .079 ||
|| Summer   .002   .006   .009   .010   .013   .017   .023   .029   .033   .039   .049 ||
|| Autumn   .000   .004   .008   .011   .016   .022   .029   .036   .040   .057   .070 ||
||                                                                             ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||          Mean       Mean     Std Dev                    1 hour      24 hour    ||
|| Winter    .036       .034        .013     .114 2108    0(0.00%)    0(0.00%)    ||
|| Spring    .028       .026        .012     .075 2184    0(0.00%)    0(0.00%)    ||
|| Summer    .019       .017        .007     .047 2090    0(0.00%)    0(0.00%)    ||
|| Autumn    .023       .021        .010     .070 2126    0(0.00%)    0(0.00%)    ||
||-------------------------------------BY MONTH--------------------------------||
|| MONTH    MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .014   .015   .022   .025   .032   .041   .050   .062   .067   .094   .119 ||
|| Feb      .010   .012   .016   .019   .026   .035   .043   .048   .052   .067   .088 ||
|| Mar      .010   .012   .017   .019   .025   .033   .041   .050   .058   .075   .079 ||
|| Apr      .004   .009   .012   .014   .019   .026   .034   .042   .049   .058   .065 ||
|| May      .006   .008   .011   .013   .016   .022   .028   .035   .040   .052   .055 ||
|| Jun      .002   .006   .010   .011   .014   .019   .025   .033   .037   .043   .049 ||
|| Jul      .006   .007   .009   .010   .013   .017   .021   .028   .031   .037   .042 ||
|| Aug      .002   .005   .008   .009   .012   .016   .021   .026   .029   .035   .039 ||
|| Sep      .000   .004   .007   .010   .015   .021   .029   .038   .047   .066   .070 ||
|| Oct      .004   .005   .009   .011   .015   .020   .027   .032   .035   .041   .044 ||
|| Nov      .000   .003   .009   .014   .020   .025   .032   .037   .041   .050   .058 ||
|| Dec      .005   .010   .015   .019   .025   .031   .036   .043   .047   .070   .092 ||
||                                                                             ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||          Mean       Mean     Std Dev                    1 hour      24 hour    ||
|| Jan       .042       .040        .015     .105  712    0(0.00%)    0(0.00%)    ||
|| Feb       .035       .033        .012     .078  656    0(0.00%)    0(0.00%)    ||
|| Mar       .034       .032        .013     .069  736    0(0.00%)    0(0.00%)    ||
|| Apr       .027       .025        .011     .061  712    0(0.00%)    0(0.00%)    ||
|| May       .023       .021        .009     .049  736    0(0.00%)    0(0.00%)    ||
|| Jun       .020       .019        .008     .047  718    0(0.00%)    0(0.00%)    ||
|| Jul       .018       .017        .007     .036  742    0(0.00%)    0(0.00%)    ||
|| Aug       .017       .016        .006     .037  630    0(0.00%)    0(0.00%)    ||
|| Sep       .023       .020        .012     .070  684    0(0.00%)    0(0.00%)    ||
|| Oct       .021       .019        .008     .040  744    0(0.00%)    0(0.00%)    ||
|| Nov       .026       .023        .009     .058  698    0(0.00%)    0(0.00%)    ||
|| Dec       .031       .029        .010     .087  740    0(0.00%)    0(0.00%)    ||
||--------------------------------------BY YEAR--------------------------------||
|| YEAR     MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .006   .010   .013   .017   .024   .034   .043   .049   .067   .119 ||
||                                                                             ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||          Mean       Mean     Std Dev                    1 hour      24 hour    ||
|| 1995      .027       .024        .013     .119 8508    0(0.00%)    0(0.00%)    ||
||-----------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                               NO2 Summary Statistics for 1995
                               Edmonton Northwest Monitoring Station
                               Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .210 PPM                                ||
|| Ambient 24-hour average guideline  =   .110 PPM                               ||
|| Ambient annual average guideline  =   .030 PPM                                ||
||-------------------------------------BY SEASON---------------------------------||
|| SEASON     MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    .001    .004    .007    .009    .015    .025    .035    .044    .052    .074    .099 ||
|| Spring    .001    .003    .005    .006    .008    .014    .025    .036    .041    .056    .072 ||
|| Summer    .002    .003    .004    .005    .007    .011    .017    .026    .031    .041    .059 ||
|| Autumn    .001    .002    .004    .006    .010    .016    .023    .032    .041    .055    .071 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances  ||
||           Mean       Mean     Std Dev                     1 hour      24 hour    ||
|| Winter    .026       .022        .015     .098 2112      0(0.00%)    0(0.00%)   ||
|| Spring    .018       .014        .012     .071 2176      0(0.00%)    0(0.00%)   ||
|| Summer    .013       .011        .009     .057 2195      0(0.00%)    0(0.00%)   ||
|| Autumn    .018       .014        .011     .070 2169      0(0.00%)    0(0.00%)   ||
||-------------------------------------BY MONTH----------------------------------||
|| MONTH      MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       .003    .004    .009    .011    .016    .024    .039    .051    .062    .081    .099 ||
|| Feb       .001    .003    .005    .007    .012    .024    .035    .041    .047    .067    .078 ||
|| Mar       .002    .003    .006    .007    .012    .021    .033    .043    .051    .063    .072 ||
|| Apr       .003    .004    .005    .006    .008    .011    .020    .029    .034    .042    .053 ||
|| May       .001    .002    .004    .005    .007    .011    .020    .030    .037    .049    .059 ||
|| Jun       .002    .002    .004    .005    .008    .011    .019    .028    .033    .048    .059 ||
|| Jul       .002    .003    .004    .005    .007    .010    .016    .023    .028    .038    .044 ||
|| Aug       .002    .003    .005    .005    .008    .011    .018    .024    .031    .040    .045 ||
|| Sep       .002    .003    .005    .006    .010    .016    .024    .033    .042    .056    .071 ||
|| Oct       .001    .002    .003    .005    .007    .013    .019    .023    .025    .032    .038 ||
|| Nov       .001    .004    .006    .007    .012    .019    .029    .040    .047    .059    .070 ||
|| Dec       .003    .004    .007    .010    .016    .025    .033    .038    .043    .064    .082 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances  ||
||           Mean       Mean     Std Dev                     1 hour      24 hour    ||
|| Jan       .029       .024        .017     .096  738      0(0.00%)    0(0.00%)   ||
|| Feb       .025       .020        .014     .077  635      0(0.00%)    0(0.00%)   ||
|| Mar       .023       .019        .014     .070  713      0(0.00%)    0(0.00%)   ||
|| Apr       .015       .012        .009     .050  719      0(0.00%)    0(0.00%)   ||
|| May       .015       .012        .010     .058  744      0(0.00%)    0(0.00%)   ||
|| Jun       .014       .012        .010     .057  720      0(0.00%)    0(0.00%)   ||
|| Jul       .012       .010        .008     .042  737      0(0.00%)    0(0.00%)   ||
|| Aug       .014       .011        .008     .043  738      0(0.00%)    0(0.00%)   ||
|| Sep       .018       .015        .011     .069  720      0(0.00%)    0(0.00%)   ||
|| Oct       .013       .011        .007     .037  738      0(0.00%)    0(0.00%)   ||
|| Nov       .022       .018        .013     .069  711      0(0.00%)    0(0.00%)   ||
|| Dec       .025       .022        .012     .079  739      0(0.00%)    0(0.00%)   ||
||--------------------------------------BY YEAR----------------------------------||
|| YEAR       MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      .001    .003    .005    .006    .009    .015    .025    .036    .043    .059    .099 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances  ||
||           Mean       Mean     Std Dev                     1 hour      24 hour    ||
|| 1995      .019       .015        .013     .098 8652      0(0.00%)    0(0.00%)   ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                          NO2 Summary Statistics for 1995
                          Edmonton East Monitoring Station
                          Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .210 PPM                              ||
|| Ambient 24-hour average guideline  =    .110 PPM                             ||
|| Ambient annual average guideline  =    .030 PPM                              ||
||-------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .002   .004   .006   .007   .013   .026   .038   .045   .050   .066   .081 ||
|| Spring   .001   .002   .003   .004   .006   .010   .017   .027   .033   .045   .061 ||
|| Summer   .000   .003   .004   .005   .007   .010   .015   .021   .026   .034   .042 ||
|| Autumn   .000   .000   .003   .005   .008   .013   .020   .027   .031   .040   .074 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                    1 hour     24 hour      ||
|| Winter    .026       .022        .015      .079 2004     0(0.00%)    0(0.00%)    ||
|| Spring    .013       .010        .010      .060 2122     0(0.00%)    0(0.00%)    ||
|| Summer    .012       .010        .007      .042 2177     0(0.00%)    0(0.00%)    ||
|| Autumn    .015       .010        .009      .074 1943     0(0.00%)    0(0.00%)    ||
||-------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .004   .005   .007   .008   .015   .029   .039   .044   .048   .059   .069 ||
|| Feb      .003   .004   .006   .007   .010   .022   .033   .041   .044   .068   .081 ||
|| Mar      .003   .004   .005   .005   .007   .012   .022   .032   .041   .050   .061 ||
|| Apr      .001   .002   .003   .003   .004   .007   .014   .024   .031   .042   .052 ||
|| May      .002   .002   .003   .004   .006   .010   .016   .024   .029   .037   .043 ||
|| Jun      .002   .003   .004   .004   .006   .010   .016   .024   .029   .036   .042 ||
|| Jul      .000   .002   .004   .005   .007   .011   .016   .022   .027   .034   .041 ||
|| Aug      .002   .003   .003   .004   .007   .010   .015   .020   .024   .033   .037 ||
|| Sep      .002   .002   .004   .005   .008   .013   .020   .029   .034   .052   .071 ||
|| Oct      .000   .000   .003   .004   .007   .013   .021   .026   .029   .035   .074 ||
|| Nov      .002   .003   .004   .005   .008   .013   .020   .027   .032   .037   .042 ||
|| Dec      .002   .003   .004   .006   .016   .031   .040   .049   .053   .069   .074 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                    1 hour     24 hour      ||
|| Jan       .027       .023        .014      .065  721     0(0.00%)    0(0.00%)    ||
|| Feb       .023       .019        .014      .078  663     0(0.00%)    0(0.00%)    ||
|| Mar       .016       .013        .011      .058  672     0(0.00%)    0(0.00%)    ||
|| Apr       .011       .008        .009      .051  712     0(0.00%)    0(0.00%)    ||
|| May       .012       .010        .008      .041  738     0(0.00%)    0(0.00%)    ||
|| Jun       .012       .010        .008      .040  713     0(0.00%)    0(0.00%)    ||
|| Jul       .012       .010        .007      .041  724     0(0.00%)    0(0.00%)    ||
|| Aug       .011       .010        .006      .035  740     0(0.00%)    0(0.00%)    ||
|| Sep       .015       .012        .010      .069  715     0(0.00%)    0(0.00%)    ||
|| Oct       .014       .009        .009      .074  735     0(0.00%)    0(0.00%)    ||
|| Nov       .015       .012        .008      .040  493     0(0.00%)    0(0.00%)    ||
|| Dec       .029       .023        .016      .072  620     0(0.00%)    0(0.00%)    ||
||-------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .002   .004   .005   .007   .013   .023   .035   .041   .052   .081 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                    1 hour     24 hour      ||
|| 1995      .016       .012        .012      .081 8246     0(0.00%)    0(0.00%)    ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                          NO2 Summary Statistics for 1995
                          Calgary Central Monitoring Station
                          Units are PPM (parts per million)
||-----------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .210 PPM                              ||
|| Ambient 24-hour average guideline  =    .110 PPM                             ||
|| Ambient annual average guideline  =    .030 PPM                              ||
||------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .006   .012   .021   .025   .030   .037   .043   .050   .056   .074   .122 ||
|| Spring   .005   .009   .012   .014   .019   .026   .034   .042   .046   .059   .088 ||
|| Summer   .004   .006   .008   .010   .014   .019   .024   .029   .033   .038   .046 ||
|| Autumn   .005   .008   .012   .015   .020   .027   .034   .042   .047   .062   .084 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||          Mean       Mean     Std Dev                    1 hour      24 hour   ||
|| Winter   .038       .036        .011      .116 2138    0(0.00%)    0(0.00%)   ||
|| Spring   .027       .025        .011      .083 2186    0(0.00%)    0(0.00%)   ||
|| Summer   .019       .018        .007      .042 2174    0(0.00%)    0(0.00%)   ||
|| Autumn   .028       .026        .011      .079 2165    0(0.00%)    0(0.00%)   ||
||-------------------------------------BY MONTH--------------------------------||
|| MONTH     MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .009   .016   .024   .027   .034   .040   .046   .053   .058   .070   .122 ||
|| Feb      .006   .008   .015   .021   .028   .035   .041   .047   .053   .068   .101 ||
|| Mar      .008   .010   .016   .019   .026   .034   .042   .049   .054   .064   .088 ||
|| Apr      .007   .009   .011   .013   .017   .024   .031   .036   .040   .046   .048 ||
|| May      .005   .008   .011   .012   .017   .022   .027   .033   .037   .043   .051 ||
|| Jun      .004   .006   .008   .010   .015   .019   .025   .030   .034   .040   .046 ||
|| Jul      .004   .005   .008   .010   .014   .018   .023   .029   .032   .037   .042 ||
|| Aug      .004   .006   .009   .011   .015   .019   .024   .029   .033   .040   .045 ||
|| Sep      .005   .007   .012   .014   .018   .023   .029   .037   .043   .054   .059 ||
|| Oct      .005   .007   .012   .015   .021   .028   .034   .039   .042   .049   .059 ||
|| Nov      .010   .011   .014   .016   .023   .032   .039   .047   .054   .072   .084 ||
|| Dec      .012   .015   .022   .025   .030   .037   .042   .049   .058   .081   .102 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||          Mean       Mean     Std Dev                    1 hour      24 hour   ||
|| Jan      .040       .039        .011      .113  738    0(0.00%)    0(0.00%)   ||
|| Feb      .035       .033        .011      .095  660    0(0.00%)    0(0.00%)   ||
|| Mar      .035       .032        .012      .080  738    0(0.00%)    0(0.00%)   ||
|| Apr      .024       .023        .009      .041  716    0(0.00%)    0(0.00%)   ||
|| May      .023       .021        .008      .046  732    0(0.00%)    0(0.00%)   ||
|| Jun      .020       .018        .008      .042  714    0(0.00%)    0(0.00%)   ||
|| Jul      .019       .017        .007      .038  727    0(0.00%)    0(0.00%)   ||
|| Aug      .020       .018        .007      .041  733    0(0.00%)    0(0.00%)   ||
|| Sep      .025       .023        .009      .054  712    0(0.00%)    0(0.00%)   ||
|| Oct      .027       .025        .009      .054  738    0(0.00%)    0(0.00%)   ||
|| Nov      .032       .030        .012      .074  715    0(0.00%)    0(0.00%)   ||
|| Dec      .037       .036        .012      .090  740    0(0.00%)    0(0.00%)   ||
||--------------------------------------BY YEAR--------------------------------||
|| YEAR      MIN     1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .004   .007   .011   .014   .019   .027   .036   .043   .048   .063   .122 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||          Mean       Mean     Std Dev                    1 hour      24 hour   ||
|| 1995     .028       .025        .012      .118 8663    0(0.00%)    0(0.00%)   ||
||-----------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         NO2 Summary Statistics for 1995
                         Calgary Northwest Monitoring Station
                         Units are PPM (parts per million)
||----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .210 PPM                                   ||
|| Ambient 24-hour average guideline  =   .110 PPM                                  ||
|| Ambient annual average guideline  =   .030 PPM                                   ||
||-------------------------------------BY SEASON------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .001   .004   .007   .011   .018   .026   .034   .042   .046   .062   .094 ||
|| Spring   .002   .002   .004   .005   .008   .013   .021   .032   .040   .051   .096 ||
|| Summer   .001   .002   .003   .004   .006   .010   .014   .020   .024   .034   .043 ||
|| Autumn   .001   .003   .004   .006   .009   .016   .024   .031   .035   .044   .059 ||
||                                                                                  ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| Winter    .027       .023        .012     .093 2146     0(0.00%)    0(0.00%)     ||
|| Spring    .016       .013        .011     .094 2035     0(0.00%)    0(0.00%)     ||
|| Summer    .011       .009        .007     .042 2193     0(0.00%)    0(0.00%)     ||
|| Autumn    .018       .015        .010     .058 2168     0(0.00%)    0(0.00%)     ||
||-------------------------------------BY MONTH-------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .004   .005   .012   .016   .023   .030   .037   .046   .050   .063   .094 ||
|| Feb      .001   .003   .005   .007   .012   .022   .032   .039   .042   .046   .059 ||
|| Mar      .002   .003   .004   .006   .011   .021   .033   .043   .048   .058   .096 ||
|| Apr      .002   .002   .004   .005   .007   .012   .018   .026   .029   .036   .042 ||
|| May      .002   .002   .003   .005   .007   .011   .016   .022   .027   .038   .047 ||
|| Jun      .002   .003   .004   .005   .007   .010   .015   .021   .025   .035   .043 ||
|| Jul      .002   .002   .003   .004   .006   .010   .014   .019   .023   .030   .034 ||
|| Aug      .001   .002   .003   .004   .006   .009   .014   .018   .023   .036   .043 ||
|| Sep      .001   .003   .004   .006   .009   .013   .020   .028   .034   .045   .058 ||
|| Oct      .002   .002   .003   .005   .008   .014   .024   .030   .033   .039   .042 ||
|| Nov      .003   .004   .006   .008   .014   .021   .028   .035   .040   .051   .059 ||
|| Dec      .005   .006   .010   .014   .019   .025   .032   .040   .047   .071   .079 ||
||                                                                                  ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| Jan       .030       .028        .012     .090  741     0(0.00%)    0(0.00%)     ||
|| Feb       .023       .019        .012     .058  667     0(0.00%)    0(0.00%)     ||
|| Mar       .023       .018        .014     .094  651     0(0.00%)    0(0.00%)     ||
|| Apr       .014       .011        .008     .040  648     0(0.00%)    0(0.00%)     ||
|| May       .012       .010        .008     .045  736     0(0.00%)    0(0.00%)     ||
|| Jun       .012       .010        .007     .041  715     0(0.00%)    0(0.00%)     ||
|| Jul       .011       .009        .006     .032  740     0(0.00%)    0(0.00%)     ||
|| Aug       .011       .009        .007     .042  738     0(0.00%)    0(0.00%)     ||
|| Sep       .016       .013        .009     .057  714     0(0.00%)    0(0.00%)     ||
|| Oct       .016       .013        .010     .040  739     0(0.00%)    0(0.00%)     ||
|| Nov       .021       .019        .010     .056  715     0(0.00%)    0(0.00%)     ||
|| Dec       .026       .024        .012     .074  738     0(0.00%)    0(0.00%)     ||
||--------------------------------------BY YEAR-------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .001   .002   .004   .005   .009   .015   .025   .034   .040   .051   .096 ||
||                                                                                  ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||          Mean       Mean     Std Dev                   1 hour      24 hour       ||
|| 1995      .018       .014        .012     .095 8542     0(0.00%)    0(0.00%)     ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                          NO2 Summary Statistics for 1995
                          Calgary East Monitoring Station
                          Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .210 PPM                                  ||
|| Ambient 24-hour average guideline  =   .110 PPM                                 ||
|| Ambient annual average guideline  =   .030 PPM                                  ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .003   .007   .013   .018   .026   .036   .043   .051   .057   .073   .134 ||
|| Spring   .003   .004   .007   .009   .015   .024   .033   .041   .045   .053   .069 ||
|| Summer   .002   .004   .006   .009   .013   .019   .026   .030   .034   .042   .053 ||
|| Autumn   .003   .006   .009   .012   .018   .025   .034   .042   .047   .061   .142 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||          Mean      Mean      Std Dev                   1 hour      24 hour      ||
|| Winter   .035      .032         .014    .131 2138    0(0.00%)    0(0.00%)       ||
|| Spring   .025      .021         .012    .066 2191    0(0.00%)    0(0.00%)       ||
|| Summer   .020      .018         .008    .051 2182    0(0.00%)    0(0.00%)       ||
|| Autumn   .027      .024         .013    .139 2166    0(0.00%)    0(0.00%)       ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .005   .011   .019   .021   .029   .038   .044   .053   .059   .073   .089 ||
|| Feb      .003   .005   .009   .012   .020   .031   .039   .045   .049   .071   .093 ||
|| Mar      .003   .004   .008   .012   .021   .032   .040   .046   .049   .062   .069 ||
|| Apr      .003   .003   .006   .008   .013   .021   .029   .036   .040   .048   .050 ||
|| May      .004   .005   .007   .009   .014   .021   .028   .033   .037   .044   .050 ||
|| Jun      .004   .006   .008   .010   .014   .021   .028   .033   .038   .045   .050 ||
|| Jul      .002   .004   .006   .008   .013   .019   .024   .028   .030   .036   .043 ||
|| Aug      .002   .004   .006   .008   .013   .019   .025   .030   .034   .043   .053 ||
|| Sep      .003   .007   .011   .014   .018   .024   .031   .039   .045   .052   .061 ||
|| Oct      .004   .005   .008   .010   .016   .025   .034   .041   .044   .052   .062 ||
|| Nov      .005   .006   .009   .013   .020   .027   .038   .047   .052   .081   .142 ||
|| Dec      .007   .011   .016   .020   .028   .037   .045   .054   .058   .078   .134 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||          Mean      Mean      Std Dev                   1 hour      24 hour      ||
|| Jan      .038      .035         .013    .084  736    0(0.00%)    0(0.00%)       ||
|| Feb      .030      .027         .013    .090  668    0(0.00%)    0(0.00%)       ||
|| Mar      .030      .027         .013    .066  740    0(0.00%)    0(0.00%)       ||
|| Apr      .022      .019         .011    .047  716    0(0.00%)    0(0.00%)       ||
|| May      .021      .019         .009    .046  735    0(0.00%)    0(0.00%)       ||
|| Jun      .021      .019         .009    .046  710    0(0.00%)    0(0.00%)       ||
|| Jul      .019      .017         .007    .041  741    0(0.00%)    0(0.00%)       ||
|| Aug      .019      .017         .009    .051  731    0(0.00%)    0(0.00%)       ||
|| Sep      .026      .024         .010    .058  713    0(0.00%)    0(0.00%)       ||
|| Oct      .025      .022         .011    .058  738    0(0.00%)    0(0.00%)       ||
|| Nov      .030      .026         .015    .137  715    0(0.00%)    0(0.00%)       ||
|| Dec      .037      .035         .014    .127  734    0(0.00%)    0(0.00%)       ||
||--------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .002   .005   .008   .011   .017   .025   .035   .043   .048   .062   .142 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||          Mean      Mean      Std Dev                   1 hour      24 hour      ||
|| 1995     .027      .023         .013    .140 8677    0(0.00%)    0(0.00%)       ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                          NO2 Summary Statistics for 1995
                          Fort Saskatchewan Monitoring Station
                          Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .210 PPM                                     ||
|| Ambient 24-hour average guideline  =   .110 PPM                                    ||
|| Ambient annual average guideline  =   .030 PPM                                     ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .001   .002   .004   .006   .010   .024   .038   .045   .050   .062   .076 ||
|| Spring   .001   .002   .003   .003   .004   .007   .015   .025   .030   .046   .062 ||
|| Summer   .000   .001   .002   .002   .004   .006   .011   .018   .021   .027   .036 ||
|| Autumn   .001   .002   .002   .003   .005   .010   .020   .028   .033   .045   .055 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                     1 hour     24 hour         ||
|| Winter    .025       .019        .016     .075 2141     0(0.00%)    0(0.00%)       ||
|| Spring    .011       .008        .010     .061 2183     0(0.00%)    0(0.00%)       ||
|| Summer    .008       .006        .006     .036 2188     0(0.00%)    0(0.00%)       ||
|| Autumn    .013       .010        .010     .054 2167     0(0.00%)    0(0.00%)       ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .002   .004   .006   .008   .013   .030   .041   .049   .056   .068   .074 ||
|| Feb      .001   .002   .004   .005   .007   .017   .032   .040   .043   .049   .054 ||
|| Mar      .001   .002   .003   .004   .006   .010   .022   .033   .042   .049   .062 ||
|| Apr      .001   .002   .003   .003   .004   .005   .009   .016   .022   .032   .036 ||
|| May      .001   .002   .003   .004   .005   .007   .015   .022   .026   .034   .047 ||
|| Jun      .001   .002   .003   .003   .004   .007   .013   .020   .023   .029   .035 ||
|| Jul      .001   .001   .002   .002   .003   .006   .011   .016   .019   .026   .036 ||
|| Aug      .000   .001   .002   .002   .003   .005   .010   .016   .019   .026   .032 ||
|| Sep      .001   .002   .002   .003   .004   .010   .019   .027   .032   .045   .055 ||
|| Oct      .001   .001   .002   .003   .004   .009   .019   .026   .029   .032   .039 ||
|| Nov      .002   .002   .003   .004   .007   .011   .021   .033   .038   .049   .050 ||
|| Dec      .001   .002   .004   .005   .011   .026   .038   .046   .050   .065   .076 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                     1 hour     24 hour         ||
|| Jan       .029       .023        .016     .072  740     0(0.00%)    0(0.00%)       ||
|| Feb       .020       .015        .014     .053  657     0(0.00%)    0(0.00%)       ||
|| Mar       .015       .011        .012     .061  736     0(0.00%)    0(0.00%)       ||
|| Apr       .008       .006        .006     .035  712     0(0.00%)    0(0.00%)       ||
|| May       .010       .008        .008     .046  735     0(0.00%)    0(0.00%)       ||
|| Jun       .009       .007        .007     .034  711     0(0.00%)    0(0.00%)       ||
|| Jul       .008       .006        .006     .035  737     0(0.00%)    0(0.00%)       ||
|| Aug       .007       .005        .006     .032  740     0(0.00%)    0(0.00%)       ||
|| Sep       .013       .009        .010     .054  713     0(0.00%)    0(0.00%)       ||
|| Oct       .012       .009        .009     .038  739     0(0.00%)    0(0.00%)       ||
|| Nov       .015       .011        .011     .048  715     0(0.00%)    0(0.00%)       ||
|| Dec       .026       .020        .016     .075  744     0(0.00%)    0(0.00%)       ||
||--------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .002   .002   .003   .005   .009   .020   .034   .042   .053   .076 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                     1 hour     24 hour         ||
|| 1995      .014       .010        .013     .076 8679     0(0.00%)    0(0.00%)       ||
||------------------------------------------------------------------------------------||
   n/a - not applicable           * - no data
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                       NO2 Summary Statistics for 1995
                       Fort McMurray Monitoring Station
                       Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .210 PPM                                      ||
|| Ambient 24-hour average guideline  =    .110 PPM                                     ||
|| Ambient annual average guideline  =    .030 PPM                                      ||
||--------------------------------------BY SEASON--------------------------------------||
|| SEASON     MIN     1%     5%     10%     25%     50%    75%    90%    95%    99%    MAX ||
|| Winter    .001   .002   .003   .004   .007   .012   .018   .024   .028   .039   .050 ||
|| Spring    .001   .001   .002   .002   .003   .006   .011   .018   .025   .039   .052 ||
|| Summer    .001   .001   .002   .002   .003   .005   .008   .012   .015   .023   .032 ||
|| Autumn    .001   .001   .001   .002   .003   .007   .012   .018   .023   .030   .040 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean     Std Dev                     1 hour      24 hour        ||
|| Winter     .013       .011        .008     .049 2155     0(0.00%)     0(0.00%)       ||
|| Spring     .008       .006        .008     .051 2173     0(0.00%)     0(0.00%)       ||
|| Summer     .006       .005        .004     .031 2202     0(0.00%)     0(0.00%)       ||
|| Autumn     .009       .006        .007     .039 2106     0(0.00%)     0(0.00%)       ||
||--------------------------------------BY MONTH---------------------------------------||
|| MONTH      MIN     1%     5%     10%     25%     50%    75%    90%    95%    99%    MAX ||
|| Jan       .002   .002   .004   .006   .008   .012   .018   .021   .024   .028   .038 ||
|| Feb       .001   .001   .002   .003   .006   .011   .018   .029   .033   .046   .050 ||
|| Mar       .001   .002   .002   .003   .004   .008   .014   .023   .031   .046   .052 ||
|| Apr       .001   .001   .002   .002   .003   .005   .008   .012   .017   .030   .040 ||
|| May       .001   .001   .001   .002   .003   .004   .010   .018   .026   .041   .048 ||
|| Jun       .001   .002   .002   .002   .003   .005   .010   .015   .019   .026   .032 ||
|| Jul       .001   .001   .002   .002   .003   .004   .007   .009   .012   .021   .024 ||
|| Aug       .001   .001   .002   .002   .003   .004   .007   .010   .013   .018   .024 ||
|| Sep       .001   .001   .001   .002   .003   .006   .012   .018   .023   .034   .040 ||
|| Oct       .001   .001   .002   .002   .004   .007   .012   .019   .024   .031   .034 ||
|| Nov       .001   .001   .001   .002   .004   .007   .012   .018   .022   .027   .033 ||
|| Dec       .001   .002   .003   .004   .007   .013   .019   .024   .028   .035   .050 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean     Std Dev                     1 hour      24 hour        ||
|| Jan        .013       .011        .006     .036  742     0(0.00%)     0(0.00%)       ||
|| Feb        .013       .010        .010     .049  672     0(0.00%)     0(0.00%)       ||
|| Mar        .011       .008        .009     .051  739     0(0.00%)     0(0.00%)       ||
|| Apr        .006       .005        .005     .039  715     0(0.00%)     0(0.00%)       ||
|| May        .008       .005        .008     .047  719     0(0.00%)     0(0.00%)       ||
|| Jun        .007       .006        .005     .031  717     0(0.00%)     0(0.00%)       ||
|| Jul        .005       .004        .004     .023  744     0(0.00%)     0(0.00%)       ||
|| Aug        .005       .004        .004     .023  741     0(0.00%)     0(0.00%)       ||
|| Sep        .008       .006        .007     .039  717     0(0.00%)     0(0.00%)       ||
|| Oct        .009       .007        .007     .033  671     0(0.00%)     0(0.00%)       ||
|| Nov        .008       .006        .006     .032  718     0(0.00%)     0(0.00%)       ||
|| Dec        .013       .011        .008     .049  741     0(0.00%)     0(0.00%)       ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR       MIN     1%     5%     10%     25%     50%    75%    90%    95%    99%    MAX ||
|| 1995      .001   .001   .002   .002   .004   .007   .012   .019   .024   .034   .052 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean     Std Dev                     1 hour      24 hour        ||
|| 1995       .009       .007        .007     .051 8636     0(0.00%)     0(0.00%)       ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              NO2 Summary Statistics for 1995
                              Royal Park Monitoring Station (Vegreville)
                              Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .210 PPM                                     ||
|| Ambient 24-hour average guideline  =    .110 PPM                                    ||
|| Ambient annual average guideline  =    .030 PPM                                     ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .003   .003   .004   .005   .007   .011   .017   .026   .033   .042   .052 ||
|| Spring   .003   .004   .006   .006   .007   .008   .009   .013   .016   .025   .041 ||
|| Summer   .004   .005   .006   .006   .007   .008   .010   .013   .015   .021   .029 ||
|| Autumn   .006   .006   .007   .008   .009   .011   .014   .018   .022   .030   .041 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| Winter    .013       .011        .009     .049 2154      0(0.00%)     0(0.00%)      ||
|| Spring    .009       .008        .004     .038 2195      0(0.00%)     0(0.00%)      ||
|| Summer    .009       .008        .003     .025 2179      0(0.00%)     0(0.00%)      ||
|| Autumn    .012       .011        .005     .035 2167      0(0.00%)     0(0.00%)      ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .003   .004   .005   .005   .008   .012   .019   .029   .036   .042   .045 ||
|| Feb      .003   .003   .004   .004   .005   .007   .011   .015   .019   .030   .036 ||
|| Mar      .003   .003   .004   .005   .007   .008   .010   .014   .017   .033   .038 ||
|| Apr      .005   .006   .006   .006   .007   .007   .008   .009   .011   .015   .023 ||
|| May      .006   .006   .007   .007   .007   .008   .011   .014   .018   .026   .041 ||
|| Jun      .004   .006   .007   .007   .008   .009   .012   .015   .017   .025   .029 ||
|| Jul      .005   .005   .006   .006   .006   .007   .009   .012   .014   .018   .027 ||
|| Aug      .005   .005   .006   .006   .007   .007   .009   .012   .014   .019   .023 ||
|| Sep      .006   .006   .007   .007   .008   .010   .013   .017   .019   .031   .038 ||
|| Oct      .007   .008   .008   .009   .010   .012   .015   .019   .022   .029   .038 ||
|| Nov      .006   .007   .007   .008   .009   .011   .014   .021   .024   .031   .041 ||
|| Dec      .005   .006   .007   .008   .010   .014   .020   .030   .035   .046   .052 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| Jan       .015       .012        .009     .042  740      0(0.00%)     0(0.00%)      ||
|| Feb       .009       .007        .005     .033  670      0(0.00%)     0(0.00%)      ||
|| Mar       .009       .008        .005     .035  740      0(0.00%)     0(0.00%)      ||
|| Apr       .008       .008        .002     .018  717      0(0.00%)     0(0.00%)      ||
|| May       .010       .009        .004     .035  738      0(0.00%)     0(0.00%)      ||
|| Jun       .010       .010        .004     .025  702      0(0.00%)     0(0.00%)      ||
|| Jul       .008       .008        .003     .022  741      0(0.00%)     0(0.00%)      ||
|| Aug       .008       .008        .003     .018  736      0(0.00%)     0(0.00%)      ||
|| Sep       .011       .010        .004     .032  715      0(0.00%)     0(0.00%)      ||
|| Oct       .013       .012        .004     .031  736      0(0.00%)     0(0.00%)      ||
|| Nov       .012       .011        .005     .035  716      0(0.00%)     0(0.00%)      ||
|| Dec       .016       .014        .009     .047  744      0(0.00%)     0(0.00%)      ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .003   .004   .005   .006   .007   .009   .012   .018   .023   .035   .052 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| 1995      .011       .010        .006     .049 8695      0(0.00%)     0(0.00%)      ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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Annual Average Concentration
Year: 1995
Pollutant: NO2 [ppm]

Year	EDMU	ERMU	EIMU	CDMU	CRMU	CIMU	Fort Sask.	Fort McMurray	Royal Park
1976	0.053	0.024	0.009	0.032	0.016	0.024	*	0.032	*
1977	0.039	0.020	0.016	0.044	0.025	0.031	*	*	*
1978	0.042	0.028	0.019	0.046	0.027	0.032	*	*	*
1979	0.043	0.029	0.023	0.047	0.023	0.027	*	0.010a	*
1980	0.036	0.023	0.017	0.041	0.019	0.025	*	b	*
1981	0.043	0.031	0.022	0.036	0.018	0.020	b	0.010	*
1982	0.037	0.027	0.017	0.047	0.018	0.030	0.020	0.010	*
1983	0.027	0.025	0.018	0.037	0.018	0.028	0.020	0.010	*
1984	0.026	0.023	0.013	0.033	0.018	0.028	0.020	0.010a	*
1985	0.029	0.020	0.019	0.036	0.015	0.027	0.010	0.010a	*
1986	0.030	0.019	0.016	0.035	0.021	0.027	0.013	0.010	*
1987	0.031	0.020	0.016	0.034	0.020	0.025	0.014	0.010	*
1988	0.028	0.020	0.016	0.035	0.019	0.026	0.013	0.010	*
1989	0.026	0.022	0.015	0.035	0.020	0.029	0.009a	0.010	*
1990	0.027	0.025	0.019	0.034	0.018	0.027	0.013	0.011	*
1991	0.029	0.026	0.021	0.037	0.018	0.026	0.013	0.010	*
1992	0.026	0.022	0.020	0.032	0.017	0.025	0.010	0.009	*
1993	0.027	0.021	0.016	0.031	0.017	0.026	0.013	0.005	*
1994	0.027	0.023	0.017	0.029	0.017	0.027	0.014	0.009	0.008
1995	0.027	0.019	0.016	0.028	0.018	0.027	0.014	0.009	0.011

a 50% to 75% of data available
b less than 50% of data available
* no data available

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                                    NO  Summary Statistics for 1995
                                    Edmonton Central Monitoring Station
                                    Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| No guidelines                                                                      ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    .002    .005    .008    .010    .018    .035    .071    .129    .179    .316    .573 ||
|| Spring    .000    .002    .006    .007    .011    .018    .028    .049    .073    .153    .292 ||
|| Summer    .000    .002    .005    .006    .008    .013    .021    .031    .042    .072    .143 ||
|| Autumn    .000    .001    .002    .004    .009    .018    .033    .059    .087    .188    .478 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean      Std Dev                                             ||
|| Winter    .056       .036         .062     .571 2108              n/a              ||
|| Spring    .026       .017         .029     .292 2184              n/a              ||
|| Summer    .017       .013         .014     .143 2090              n/a              ||
|| Autumn    .028       .015         .037     .478 2126              n/a              ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH      MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       .003    .007    .011    .014    .024    .052    .108    .178    .230    .373    .573 ||
|| Feb       .004    .005    .007    .009    .016    .029    .047    .078    .099    .218    .318 ||
|| Mar       .000    .000    .006    .008    .015    .023    .039    .075    .117    .219    .292 ||
|| Apr       .000    .001    .006    .007    .011    .017    .027    .042    .057    .116    .179 ||
|| May       .002    .003    .006    .007    .009    .014    .021    .032    .041    .129    .271 ||
|| Jun       .000    .003    .004    .005    .007    .012    .020    .031    .041    .077    .098 ||
|| Jul       .000    .001    .005    .006    .009    .013    .019    .028    .036    .062    .095 ||
|| Aug       .002    .003    .005    .006    .009    .015    .023    .036    .049    .080    .143 ||
|| Sep       .000    .000    .002    .002    .006    .014    .026    .059    .092    .266    .478 ||
|| Oct       .000    .001    .003    .004    .008    .017    .029    .053    .072    .120    .205 ||
|| Nov       .001    .002    .004    .007    .013    .023    .041    .068    .101    .185    .335 ||
|| Dec       .002    .002    .007    .009    .017    .031    .059    .109    .138    .339    .433 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean      Std Dev                                             ||
|| Jan       .079       .051         .076     .570  712              n/a              ||
|| Feb       .039       .028         .038     .314  656              n/a              ||
|| Mar       .035       .020         .038     .292  736              n/a              ||
|| Apr       .022       .017         .020     .179  712              n/a              ||
|| May       .019       .014         .021     .269  736              n/a              ||
|| Jun       .016       .012         .013     .098  718              n/a              ||
|| Jul       .016       .012         .011     .095  742              n/a              ||
|| Aug       .019       .015         .016     .141  630              n/a              ||
|| Sep       .027       .011         .048     .478  684              n/a              ||
|| Oct       .024       .014         .025     .205  744              n/a              ||
|| Nov       .033       .022         .035     .334  698              n/a              ||
|| Dec       .049       .031         .059     .431  740              n/a              ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR       MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      .000    .002    .005    .006    .010    .019    .034    .069    .106    .223    .573 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean      Std Dev                                             ||
|| 1995      .032       .018         .042     .573 8508              n/a              ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              NO  Summary Statistics for 1995
                              Edmonton Northwest Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| No guidelines                                                                   ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    .000    .000    .002    .003    .009    .028    .075    .154    .218    .413    .703 ||
|| Spring    .000    .000    .000    .000    .002    .006    .014    .039    .068    .189    .393 ||
|| Summer    .000    .000    .000    .000    .001    .006    .012    .024    .041    .079    .213 ||
|| Autumn    .000    .000    .000    .001    .004    .011    .030    .068    .111    .252    .587 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                                           ||
|| Winter     .059       .022        .082      .703 2112              n/a          ||
|| Spring     .016       .003        .034      .393 2176              n/a          ||
|| Summer     .010       .001        .016      .213 2195              n/a          ||
|| Autumn     .028       .007        .047      .587 2169              n/a          ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       .000    .000    .001    .003    .009    .042    .104    .207    .278    .546    .703 ||
|| Feb       .000    .000    .001    .003    .008    .017    .038    .095    .146    .304    .421 ||
|| Mar       .000    .000    .000    .001    .003    .010    .027    .085    .146    .238    .393 ||
|| Apr       .000    .000    .000    .001    .002    .005    .012    .028    .043    .112    .193 ||
|| May       .000    .000    .000    .000    .001    .004    .009    .021    .036    .077    .174 ||
|| Jun       .000    .000    .000    .000    .001    .004    .010    .023    .033    .068    .086 ||
|| Jul       .000    .000    .000    .000    .001    .005    .010    .021    .034    .060    .105 ||
|| Aug       .000    .000    .000    .000    .002    .008    .015    .035    .059    .110    .213 ||
|| Sep       .000    .000    .000    .001    .004    .011    .028    .071    .114    .268    .305 ||
|| Oct       .000    .000    .001    .002    .005    .011    .028    .064    .084    .186    .364 ||
|| Nov       .000    .000    .001    .001    .004    .013    .035    .075    .143    .285    .587 ||
|| Dec       .000    .001    .003    .005    .011    .036    .080    .131    .175    .316    .591 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                                           ||
|| Jan        .079       .026        .105      .703  738              n/a          ||
|| Feb        .037       .014        .055      .421  635              n/a          ||
|| Mar        .029       .005        .051      .393  713              n/a          ||
|| Apr        .011       .002        .019      .193  719              n/a          ||
|| May        .009       .002        .015      .174  744              n/a          ||
|| Jun        .008       .001        .012      .086  720              n/a          ||
|| Jul        .009       .001        .012      .105  737              n/a          ||
|| Aug        .014       .002        .022      .213  738              n/a          ||
|| Sep        .027       .005        .046      .305  720              n/a          ||
|| Oct        .024       .009        .036      .364  738              n/a          ||
|| Nov        .032       .009        .057      .587  711              n/a          ||
|| Dec        .057       .027        .067      .591  739              n/a          ||
||-------------------------------------BY YEAR-------------------------------------||
|| YEAR       MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      .000    .000    .000    .001    .003    .009    .027    .074    .123    .269    .703 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean     Std Dev                                           ||
|| 1995       .028       .004        .054      .703 8652              n/a          ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                           NO  Summary Statistics for 1995
                           Edmonton East Monitoring Station
                           Units are PPM (parts per million)
||--------------------------------------------------------------------------------||
|| No guidelines                                                                  ||
||-------------------------------------BY SEASON----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .001   .002   .005   .013   .046   .105   .145   .270   .482 ||
|| Spring   .000   .000   .000   .000   .001   .003   .007   .018   .033   .084   .211 ||
|| Summer   .000   .000   .000   .000   .001   .004   .008   .016   .027   .054   .104 ||
|| Autumn   .000   .000   .000   .001   .004   .009   .019   .039   .058   .124   .346 ||
||                                                                                ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                                           ||
|| Winter    .037      .012        .054     .482 2004             n/a             ||
|| Spring    .008      .001        .016     .211 2122             n/a             ||
|| Summer    .007      .002        .011     .104 2177             n/a             ||
|| Autumn    .017      .005        .026     .346 1943             n/a             ||
||-------------------------------------BY MONTH-----------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .003   .004   .006   .020   .072   .121   .157   .241   .328 ||
|| Feb      .000   .000   .001   .001   .004   .008   .021   .058   .101   .205   .416 ||
|| Mar      .000   .000   .000   .000   .001   .004   .010   .032   .060   .139   .211 ||
|| Apr      .000   .000   .000   .000   .000   .002   .005   .015   .026   .053   .100 ||
|| May      .000   .000   .000   .000   .001   .002   .006   .012   .020   .053   .101 ||
|| Jun      .000   .000   .000   .000   .001   .003   .007   .014   .021   .047   .088 ||
|| Jul      .000   .000   .000   .001   .002   .004   .007   .013   .022   .044   .062 ||
|| Aug      .000   .000   .000   .001   .002   .005   .010   .022   .031   .077   .104 ||
|| Sep      .000   .000   .001   .001   .003   .007   .016   .044   .081   .212   .346 ||
|| Oct      .000   .000   .000   .001   .005   .009   .018   .038   .055   .087   .154 ||
|| Nov      .000   .000   .000   .000   .003   .012   .021   .036   .051   .103   .181 ||
|| Dec      .000   .001   .001   .002   .004   .016   .053   .115   .170   .328   .482 ||
||                                                                                ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                                           ||
|| Jan       .045      .017        .054     .328  721             n/a             ||
|| Feb       .022      .007        .041     .416  663             n/a             ||
|| Mar       .012      .002        .024     .211  672             n/a             ||
|| Apr       .005      .000        .010     .100  712             n/a             ||
|| May       .005      .001        .010     .101  738             n/a             ||
|| Jun       .006      .001        .009     .088  713             n/a             ||
|| Jul       .006      .002        .008     .062  724             n/a             ||
|| Aug       .009      .003        .014     .104  740             n/a             ||
|| Sep       .018      .006        .036     .346  715             n/a             ||
|| Oct       .015      .005        .019     .154  735             n/a             ||
|| Nov       .016      .004        .019     .181  493             n/a             ||
|| Dec       .042      .014        .064     .482  620             n/a             ||
||--------------------------------------BY YEAR-----------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .002   .006   .015   .042   .077   .167   .482 ||
||                                                                                ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances   ||
||           Mean      Mean     Std Dev                                           ||
|| 1995      .017      .003        .034     .482 8246             n/a             ||
||--------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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NO Summary Statistics for 1995
Calgary Central Monitoring Station
Units are PPM (parts per million)

No guidelines

BY SEASON

SEASON	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
Winter	.000	.001	.003	.005	.013	.031	.072	.157	.228	.392	.601
Spring	.000	.001	.002	.002	.005	.010	.022	.041	.064	.124	.244
Summer	.000	.000	.001	.001	.003	.008	.016	.028	.039	.078	.147
Autumn	.000	.000	.001	.003	.007	.019	.045	.094	.149	.267	.768

SEASON	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
Winter	.060	.027	.078	.601	2138	n/a
Spring	.018	.009	.025	.244	2186	n/a
Summer	.013	.006	.015	.147	2175	n/a
Autumn	.039	.015	.056	.768	2165	n/a

BY MONTH

MONTH	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
Jan	.001	.002	.006	.011	.022	.054	.115	.200	.254	.408	.601
Feb	.000	.000	.001	.003	.010	.021	.045	.104	.179	.283	.446
Mar	.000	.001	.002	.003	.008	.016	.034	.069	.097	.181	.244
Apr	.000	.001	.002	.002	.004	.009	.019	.034	.050	.098	.143
May	.000	.000	.001	.002	.004	.008	.016	.027	.037	.077	.107
Jun	.000	.000	.001	.001	.003	.007	.014	.026	.037	.067	.106
Jul	.000	.000	.001	.002	.004	.009	.017	.025	.036	.075	.126
Aug	.000	.000	.001	.001	.004	.010	.017	.033	.046	.097	.147
Sep	.000	.000	.001	.003	.006	.015	.027	.055	.079	.160	.233
Oct	.000	.000	.001	.002	.006	.015	.038	.084	.122	.215	.266
Nov	.000	.000	.002	.004	.013	.036	.075	.152	.219	.352	.768
Dec	.001	.001	.003	.004	.012	.028	.057	.134	.244	.416	.505

MONTH	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
Jan	.082	.047	.086	.600	738	n/a
Feb	.042	.016	.059	.446	660	n/a
Mar	.028	.014	.034	.244	738	n/a
Apr	.015	.008	.018	.143	716	n/a
May	.012	.006	.013	.107	732	n/a
Jun	.011	.005	.013	.106	714	n/a
Jul	.012	.006	.014	.126	727	n/a
Aug	.014	.006	.017	.147	734	n/a
Sep	.023	.011	.030	.233	712	n/a
Oct	.031	.012	.042	.266	738	n/a
Nov	.061	.026	.078	.768	715	n/a
Dec	.054	.025	.079	.504	740	n/a

BY YEAR

YEAR	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
1995	.000	.000	.001	.002	.006	.014	.034	.080	.131	.270	.768

YEAR	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
1995	.032	.012	.053	.768	8664	n/a

n/a - not applicable   * - no data

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                                    NO  Summary Statistics for 1995
                                    Calgary Northwest Monitoring Station
                                    Units are PPM (parts per million)
||----------------------------------------------------------------------------------||
|| No guidelines                                                                    ||
||-----------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000   .000   .001   .002   .007   .023   .073   .128   .277   .441 ||
|| Spring   .000   .000   .000   .000   .001   .001   .004   .012   .023   .074   .194 ||
|| Summer   .000   .000   .000   .000   .000   .001   .003   .009   .014   .026   .052 ||
|| Autumn   .000   .000   .000   .000   .001   .003   .013   .040   .067   .169   .407 ||
||                                                                                  ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                                           ||
|| Winter    .027       .004        .053     .441 2146              n/a             ||
|| Spring    .005       .000        .014     .194 2035              n/a             ||
|| Summer    .003       .000        .005     .052 2193              n/a             ||
|| Autumn    .015       .002        .033     .407 2168              n/a             ||
||-----------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .000   .000   .001   .004   .013   .046   .119   .174   .304   .441 ||
|| Feb      .000   .000   .000   .000   .001   .003   .013   .042   .068   .131   .209 ||
|| Mar      .000   .000   .000   .000   .001   .003   .010   .030   .052   .103   .194 ||
|| Apr      .000   .000   .000   .000   .000   .001   .003   .006   .014   .031   .109 ||
|| May      .000   .000   .000   .000   .000   .001   .002   .005   .008   .019   .079 ||
|| Jun      .000   .000   .000   .000   .000   .001   .002   .009   .013   .024   .034 ||
|| Jul      .000   .000   .000   .000   .000   .001   .003   .008   .012   .027   .034 ||
|| Aug      .000   .000   .000   .000   .000   .001   .003   .009   .015   .029   .052 ||
|| Sep      .000   .000   .000   .000   .001   .002   .005   .016   .030   .078   .140 ||
|| Oct      .000   .000   .000   .000   .001   .002   .009   .037   .060   .114   .307 ||
|| Nov      .000   .000   .000   .001   .002   .008   .027   .061   .115   .251   .407 ||
|| Dec      .000   .000   .001   .001   .003   .007   .019   .056   .107   .348   .431 ||
||                                                                                  ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                                           ||
|| Jan       .040       .007        .063     .441  741              n/a             ||
|| Feb       .014       .002        .027     .209  667              n/a             ||
|| Mar       .011       .001        .021     .194  651              n/a             ||
|| Apr       .003       .000        .008     .109  648              n/a             ||
|| May       .002       .000        .005     .079  736              n/a             ||
|| Jun       .003       .000        .005     .034  715              n/a             ||
|| Jul       .003       .000        .005     .034  740              n/a             ||
|| Aug       .003       .000        .006     .052  738              n/a             ||
|| Sep       .007       .001        .014     .140  714              n/a             ||
|| Oct       .012       .001        .026     .307  739              n/a             ||
|| Nov       .025       .005        .046     .407  715              n/a             ||
|| Dec       .025       .006        .056     .431  738              n/a             ||
||------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000   .000   .000   .001   .002   .009   .030   .059   .176   .441 ||
||                                                                                  ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                                           ||
|| 1995      .012       .001        .033     .441 8542              n/a             ||
||----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                              NO  Summary Statistics for 1995
                              Calgary East Monitoring Station
                              Units are PPM (parts per million)
||--------------------------------------------------------------------------------------||
|| No guidelines                                                                        ||
||-------------------------------------BY SEASON----------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .003   .012   .045   .128   .253   .329   .528   .704 ||
|| Spring   .000   .000   .000   .000   .002   .009   .027   .063   .100   .203   .374 ||
|| Summer   .000   .000   .000   .001   .002   .009   .021   .042   .064   .123   .236 ||
|| Autumn   .000   .000   .000   .001   .005   .022   .067   .147   .231   .413   .934 ||
||                                                                                      ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean     Std Dev                                                 ||
|| Winter    .091      .022        .114     .704 2138              n/a                  ||
|| Spring    .023      .003        .039     .374 2191              n/a                  ||
|| Summer    .017      .004        .024     .236 2182              n/a                  ||
|| Autumn    .055      .010        .085     .934 2166              n/a                  ||
||-------------------------------------BY MONTH-----------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .003   .010   .031   .090   .192   .310   .406   .605   .704 ||
|| Feb      .000   .000   .000   .000   .004   .022   .078   .173   .268   .452   .653 ||
|| Mar      .000   .000   .001   .001   .005   .017   .051   .112   .148   .266   .358 ||
|| Apr      .000   .000   .000   .000   .001   .008   .021   .039   .057   .110   .374 ||
|| May      .000   .000   .000   .000   .001   .005   .016   .040   .062   .103   .152 ||
|| Jun      .000   .000   .000   .001   .003   .009   .020   .038   .061   .123   .168 ||
|| Jul      .000   .000   .000   .000   .003   .010   .020   .043   .061   .109   .143 ||
|| Aug      .000   .000   .000   .000   .002   .009   .022   .043   .067   .126   .236 ||
|| Sep      .000   .000   .000   .002   .006   .017   .043   .095   .119   .200   .297 ||
|| Oct      .000   .000   .000   .001   .002   .017   .061   .141   .193   .374   .487 ||
|| Nov      .000   .000   .001   .002   .009   .039   .100   .244   .344   .474   .934 ||
|| Dec      .000   .000   .002   .004   .011   .037   .114   .224   .289   .459   .584 ||
||                                                                                      ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean     Std Dev                                                 ||
|| Jan       .130      .055        .132     .704  736              n/a                  ||
|| Feb       .061      .007        .095     .653  668              n/a                  ||
|| Mar       .040      .010        .053     .358  740              n/a                  ||
|| Apr       .016      .002        .026     .374  716              n/a                  ||
|| May       .014      .002        .022     .152  735              n/a                  ||
|| Jun       .017      .005        .023     .168  710              n/a                  ||
|| Jul       .017      .004        .022     .143  741              n/a                  ||
|| Aug       .018      .003        .027     .236  731              n/a                  ||
|| Sep       .034      .010        .042     .297  713              n/a                  ||
|| Oct       .047      .006        .072     .487  738              n/a                  ||
|| Nov       .083      .019        .117     .934  715              n/a                  ||
|| Dec       .080      .025        .100     .584  734              n/a                  ||
||--------------------------------------BY YEAR-----------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .001   .004   .015   .049   .128   .212   .403   .934 ||
||                                                                                      ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean     Std Dev                                                 ||
|| 1995      .046      .007        .080     .934 8677              n/a                  ||
||--------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                                    NO  Summary Statistics for 1995
                                    Fort Saskatchewan Monitoring Station
                                    Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| No guidelines                                                                      ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .000    .001    .001    .003    .012    .054    .110    .148    .245    .336 ||
|| Spring   .000    .000    .000    .000    .000    .002    .004    .012    .025    .073    .220 ||
|| Summer   .000    .000    .000    .000    .001    .002    .004    .008    .014    .034    .071 ||
|| Autumn   .000    .000    .000    .001    .001    .004    .011    .033    .062    .129    .237 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                                              ||
|| Winter    .037       .010       .052     .336 2141             n/a                 ||
|| Spring    .006       .000       .014     .220 2183             n/a                 ||
|| Summer    .004       .001       .006     .071 2188             n/a                 ||
|| Autumn    .013       .003       .025     .237 2167             n/a                 ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .000    .001    .001    .004    .025    .082    .141    .169    .250    .336 ||
|| Feb      .000    .000    .001    .001    .002    .006    .018    .060    .089    .132    .176 ||
|| Mar      .000    .000    .000    .000    .000    .003    .008    .028    .052    .089    .220 ||
|| Apr      .000    .000    .000    .000    .000    .001    .003    .007    .013    .047    .147 ||
|| May      .000    .000    .000    .000    .001    .002    .004    .008    .014    .036    .079 ||
|| Jun      .000    .000    .000    .000    .001    .001    .003    .008    .013    .028    .056 ||
|| Jul      .000    .000    .000    .001    .001    .002    .003    .007    .011    .025    .039 ||
|| Aug      .000    .000    .000    .000    .001    .002    .004    .010    .021    .046    .071 ||
|| Sep      .000    .000    .001    .001    .001    .003    .011    .029    .066    .155    .235 ||
|| Oct      .000    .000    .000    .001    .001    .003    .011    .031    .051    .086    .111 ||
|| Nov      .000    .000    .001    .001    .002    .005    .011    .043    .074    .161    .237 ||
|| Dec      .000    .001    .001    .002    .004    .020    .056    .112    .154    .258    .332 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                                              ||
|| Jan       .051       .014       .061     .336  740             n/a                 ||
|| Feb       .018       .005       .029     .176  657             n/a                 ||
|| Mar       .010       .000       .020     .220  736             n/a                 ||
|| Apr       .004       .000       .010     .147  712             n/a                 ||
|| May       .004       .001       .007     .079  735             n/a                 ||
|| Jun       .003       .001       .005     .056  711             n/a                 ||
|| Jul       .003       .001       .004     .039  737             n/a                 ||
|| Aug       .004       .000       .008     .071  740             n/a                 ||
|| Sep       .013       .003       .027     .235  713             n/a                 ||
|| Oct       .011       .002       .018     .111  739             n/a                 ||
|| Nov       .015       .004       .029     .237  715             n/a                 ||
|| Dec       .041       .015       .054     .332  744             n/a                 ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .000    .000    .000    .001    .003    .010    .044    .081    .162    .336 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                                              ||
|| 1995      .015       .002       .033     .336 8679             n/a                 ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              NO  Summary Statistics for 1995
                              Fort McMurray Monitoring Station
                              Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||---------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000    .000    .001    .001    .004    .012    .028    .045    .088    .142 ||
|| Spring   .000   .000    .001    .001    .002    .002    .004    .008    .014    .046    .139 ||
|| Summer   .000   .001    .001    .001    .001    .002    .004    .007    .010    .021    .037 ||
|| Autumn   .000   .000    .001    .001    .002    .003    .008    .020    .032    .071    .161 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances     ||
||           Mean       Mean      Std Dev                                              ||
|| Winter    .011       .002         .017     .142 2155              n/a               ||
|| Spring    .004       .002         .009     .139 2173              n/a               ||
|| Summer    .003       .002         .004     .037 2202              n/a               ||
|| Autumn    .008       .003         .013     .161 2106              n/a               ||
||---------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .000    .001    .001    .002    .005    .012    .026    .046    .075    .100 ||
|| Feb      .000   .000    .000    .000    .001    .003    .008    .025    .042    .096    .142 ||
|| Mar      .000   .000    .000    .000    .001    .003    .005    .012    .023    .065    .139 ||
|| Apr      .001   .001    .001    .001    .002    .002    .003    .005    .008    .028    .047 ||
|| May      .001   .001    .001    .001    .002    .002    .003    .007    .012    .029    .104 ||
|| Jun      .000   .001    .001    .001    .001    .002    .003    .006    .007    .014    .025 ||
|| Jul      .000   .001    .001    .001    .001    .002    .004    .006    .009    .015    .024 ||
|| Aug      .001   .001    .001    .001    .001    .002    .005    .009    .014    .026    .037 ||
|| Sep      .000   .001    .001    .001    .002    .003    .010    .020    .032    .059    .097 ||
|| Oct      .000   .000    .001    .001    .002    .004    .011    .025    .041    .095    .161 ||
|| Nov      .000   .000    .001    .001    .001    .002    .006    .014    .024    .056    .114 ||
|| Dec      .000   .000    .000    .001    .002    .005    .014    .035    .052    .104    .126 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances     ||
||           Mean       Mean      Std Dev                                              ||
|| Jan       .011       .004         .014     .100  742              n/a               ||
|| Feb       .009       .001         .018     .142  672              n/a               ||
|| Mar       .006       .002         .012     .139  739              n/a               ||
|| Apr       .003       .003         .004     .046  715              n/a               ||
|| May       .004       .003         .007     .103  719              n/a               ||
|| Jun       .003       .002         .003     .025  717              n/a               ||
|| Jul       .003       .002         .003     .024  744              n/a               ||
|| Aug       .004       .003         .005     .036  741              n/a               ||
|| Sep       .008       .004         .012     .097  717              n/a               ||
|| Oct       .011       .004         .017     .161  671              n/a               ||
|| Nov       .006       .003         .010     .114  718              n/a               ||
|| Dec       .012       .003         .019     .126  741              n/a               ||
||----------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000    .001    .001    .002    .003    .006    .015    .026    .065    .161 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances     ||
||           Mean       Mean      Std Dev                                              ||
|| 1995      .007       .003         .012     .161 8636              n/a               ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                         NO  Summary Statistics for 1995
                         Royal Park Monitoring Station (Vegreville)
                         Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||------------------------------------BY SEASON----------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .000    .000    .002    .003    .004    .005    .009    .013    .022    .064 ||
|| Spring   .002    .003    .003    .003    .003    .004    .004    .005    .005    .008    .024 ||
|| Summer   .000    .003    .003    .003    .003    .004    .004    .005    .007    .009    .032 ||
|| Autumn   .002    .002    .003    .003    .003    .003    .004    .005    .008    .010    .034 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Winter    .005       .003          .004     .064 2154              n/a              ||
|| Spring    .004       .004          .001     .022 2195              n/a              ||
|| Summer    .004       .004          .002     .032 2179              n/a              ||
|| Autumn    .004       .004          .002     .032 2167              n/a              ||
||------------------------------------BY MONTH-----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .000    .000    .000    .003    .004    .006    .015    .020    .029    .064 ||
|| Feb      .003    .003    .003    .003    .004    .004    .004    .006    .009    .015    .024 ||
|| Mar      .002    .003    .003    .003    .003    .004    .004    .005    .007    .010    .024 ||
|| Apr      .003    .003    .003    .003    .003    .004    .004    .004    .004    .006    .008 ||
|| May      .003    .003    .003    .003    .004    .004    .004    .005    .005    .007    .012 ||
|| Jun      .000    .003    .003    .004    .004    .004    .005    .005    .006    .010    .032 ||
|| Jul      .002    .003    .003    .003    .003    .003    .004    .005    .008    .010    .018 ||
|| Aug      .002    .003    .003    .003    .003    .003    .004    .005    .008    .009    .009 ||
|| Sep      .002    .002    .003    .003    .003    .003    .004    .005    .008    .009    .021 ||
|| Oct      .002    .002    .003    .003    .003    .003    .004    .005    .008    .011    .034 ||
|| Nov      .002    .002    .003    .003    .003    .003    .004    .005    .008    .011    .016 ||
|| Dec      .002    .002    .002    .003    .003    .003    .004    .008    .009    .015    .024 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Jan       .006       .002          .006     .064  740              n/a              ||
|| Feb       .005       .004          .002     .021  670              n/a              ||
|| Mar       .004       .004          .002     .022  740              n/a              ||
|| Apr       .004       .004          .001     .005  717              n/a              ||
|| May       .004       .004          .001     .009  738              n/a              ||
|| Jun       .005       .004          .002     .032  702              n/a              ||
|| Jul       .004       .004          .002     .016  741              n/a              ||
|| Aug       .004       .004          .001     .007  736              n/a              ||
|| Sep       .004       .004          .002     .019  715              n/a              ||
|| Oct       .004       .004          .002     .032  736              n/a              ||
|| Nov       .004       .004          .002     .014  716              n/a              ||
|| Dec       .004       .004          .003     .022  744              n/a              ||
||------------------------------------BY YEAR------------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .000    .003    .003    .003    .004    .004    .006    .008    .016    .064 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| 1995      .004       .003          .003     .064 8695              n/a              ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

Annual Average Concentration
Year: 1995
Pollutant: NO [ppm]

Year	EDMU	ERMU	EIMU	CDMU	CRMU	CIMU	Fort Sask.	Fort McMurray	Royal Park
1976	**	**	**	**	**	**	*	**	*
1977	**	**	**	**	**	**	*	*	*
1978	**	**	**	**	**	**	*	*	*
1979	**	**	**	**	**	**	*	**a	*
1980	**	**	**	**	**	**	*	b	*
1981	**	**	**	**	**	**	b	**	*
1982	**	**	**	**	**	**	**	**	*
1983	**	**	**	**	**	**	**	**	*
1984	**	**	**	**	**	**	**	**a	*
1985	**	**	**	**	**	**	**	**a	*
1986	**	**	**	**	**	**	**	**	*
1987	0.041	0.046	0.017	0.036	0.013	0.051	0.016	0.011	*
1988	0.036	0.036	0.017	0.039	0.013	0.056	0.013	0.010	*
1989	0.037	0.034	0.017	0.032	0.011	0.047	0.011a	0.009	*
1990	0.034	0.037	0.020	0.029	0.010	0.043	0.012	0.012	*
1991	0.035	0.042	0.023	0.034	0.012	0.049	0.013	0.010	*
1992	0.033	0.036	0.020	0.031	0.012	0.049	0.011	0.010	*
1993	0.032	0.035	0.015	0.029	0.010	0.047	0.014	0.007	*
1994	0.031	0.034	0.016	0.031	0.011	0.046	0.014	0.008	0.006
1995	0.032	0.028	0.017	0.032	0.012	0.046	0.015	0.007	0.004

a 50% to 75% of data available
b less than 50% of data available
** annual average not calculated
* no data available

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                         NOX Summary Statistics for 1995
                         Edmonton Central Monitoring Station
                         Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| No guidelines                                                                 ||
||-------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .006   .016   .024   .030   .044   .067   .110   .173   .234   .388   .689 ||
|| Spring   .004   .012   .016   .019   .027   .040   .059   .085   .117   .214   .360 ||
|| Summer   .002   .007   .011   .014   .019   .028   .039   .054   .067   .101   .164 ||
|| Autumn   .000   .006   .012   .017   .027   .041   .060   .093   .124   .233   .535 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| Winter    .090       .070         .075     .683 2108              n/a          ||
|| Spring    .049       .041         .037     .356 2184              n/a          ||
|| Summer    .032       .027         .019     .162 2125              n/a          ||
|| Autumn    .051       .040         .044     .535 2126              n/a          ||
||-------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .014   .019   .031   .036   .053   .089   .153   .235   .295   .477   .689 ||
|| Feb      .012   .014   .020   .026   .039   .062   .083   .119   .143   .295   .383 ||
|| Mar      .012   .015   .021   .027   .036   .051   .076   .119   .169   .278   .360 ||
|| Apr      .004   .011   .016   .018   .026   .039   .056   .077   .096   .168   .233 ||
|| May      .008   .011   .015   .017   .022   .032   .044   .060   .074   .173   .319 ||
|| Jun      .003   .008   .011   .014   .020   .028   .040   .056   .072   .111   .132 ||
|| Jul      .003   .008   .010   .014   .019   .028   .037   .048   .061   .088   .126 ||
|| Aug      .002   .005   .011   .013   .018   .028   .041   .057   .068   .103   .164 ||
|| Sep      .000   .005   .010   .013   .023   .036   .055   .094   .137   .325   .535 ||
|| Oct      .003   .006   .013   .017   .025   .038   .055   .082   .101   .150   .243 ||
|| Nov      .004   .008   .018   .023   .035   .047   .069   .102   .139   .229   .384 ||
|| Dec      .006   .015   .023   .029   .042   .060   .092   .150   .180   .410   .516 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| Jan       .118       .092         .092     .675  712              n/a          ||
|| Feb       .070       .058         .047     .371  656              n/a          ||
|| Mar       .065       .054         .047     .348  736              n/a          ||
|| Apr       .045       .039         .028     .229  712              n/a          ||
|| May       .037       .032         .027     .311  736              n/a          ||
|| Jun       .033       .028         .019     .129  718              n/a          ||
|| Jul       .030       .026         .016     .123  742              n/a          ||
|| Aug       .032       .027         .020     .162  665              n/a          ||
|| Sep       .050       .035         .056     .535  684              n/a          ||
|| Oct       .045       .037         .030     .240  744              n/a          ||
|| Nov       .058       .048         .041     .380  698              n/a          ||
|| Dec       .080       .064         .067     .510  740              n/a          ||
||-------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .008   .014   .017   .027   .041   .065   .106   .148   .287   .689 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| 1995      .055       .042         .052     .689 8543              n/a          ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                          NOX Summary Statistics for 1995
                          Edmonton Northwest Monitoring Station
                          Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| No guidelines                                                                ||
||-------------------------------------BY SEASON--------------------------------||
|| SEASON   MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .001   .005   .010   .014   .024   .053   .108   .195   .265   .472   .801 ||
|| Spring   .002   .003   .005   .007   .011   .019   .036   .072   .108   .232   .448 ||
|| Summer   .000   .001   .003   .005   .010   .016   .028   .049   .069   .110   .254 ||
|| Autumn   .000   .002   .005   .009   .015   .026   .051   .096   .146   .294   .638 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean      Std Dev                                       ||
|| Winter    .084       .051         .094     .800 2112            n/a          ||
|| Spring    .033       .021         .043     .446 2176            n/a          ||
|| Summer    .023       .015         .022     .254 2195            n/a          ||
|| Autumn    .045       .027         .055     .638 2169            n/a          ||
||-------------------------------------BY MONTH---------------------------------||
|| MONTH    MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .004   .005   .011   .014   .024   .068   .141   .257   .339   .617   .801 ||
|| Feb      .001   .004   .008   .011   .023   .039   .070   .132   .192   .354   .489 ||
|| Mar      .003   .004   .007   .009   .016   .030   .060   .127   .191   .288   .448 ||
|| Apr      .002   .003   .005   .007   .010   .016   .029   .053   .073   .152   .234 ||
|| May      .002   .003   .004   .006   .010   .016   .028   .048   .068   .118   .203 ||
|| Jun      .000   .001   .003   .005   .009   .015   .027   .048   .061   .099   .141 ||
|| Jul      .000   .001   .003   .005   .009   .015   .024   .042   .059   .087   .127 ||
|| Aug      .000   .001   .003   .005   .011   .018   .031   .057   .084   .137   .254 ||
|| Sep      .000   .002   .005   .008   .015   .026   .051   .101   .147   .317   .358 ||
|| Oct      .001   .002   .004   .007   .013   .024   .046   .085   .108   .204   .392 ||
|| Nov      .003   .004   .007   .010   .018   .031   .062   .114   .183   .342   .638 ||
|| Dec      .004   .006   .012   .016   .024   .060   .111   .168   .217   .379   .650 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean      Std Dev                                       ||
|| Jan       .107       .061         .120     .797  738            n/a          ||
|| Feb       .061       .040         .066     .488  635            n/a          ||
|| Mar       .052       .032         .061     .445  713            n/a          ||
|| Apr       .025       .017         .027     .232  719            n/a          ||
|| May       .023       .016         .023     .201  744            n/a          ||
|| Jun       .021       .014         .020     .141  720            n/a          ||
|| Jul       .020       .014         .017     .127  737            n/a          ||
|| Aug       .026       .016         .028     .254  738            n/a          ||
|| Sep       .045       .026         .054     .358  720            n/a          ||
|| Oct       .037       .023         .040     .391  738            n/a          ||
|| Nov       .053       .033         .067     .635  711            n/a          ||
|| Dec       .081       .054         .077     .646  739            n/a          ||
||-------------------------------------BY YEAR----------------------------------||
|| YEAR     MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .002   .005   .007   .013   .024   .052   .106   .163   .323   .801 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean      Std Dev                                       ||
|| 1995      .046       .025         .063     .801 8652            n/a          ||
||------------------------------------------------------------------------------||
   n/a - not applicable           * - no data
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                              NOX Summary Statistics for 1995
                              Edmonton East Monitoring Station
                              Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| No guidelines                                                                 ||
||--------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .003   .005   .007   .010   .018   .039   .081   .149   .192   .319   .555 ||
|| Spring   .001   .001   .003   .004   .007   .012   .022   .043   .063   .123   .272 ||
|| Summer   .000   .003   .004   .005   .009   .014   .022   .036   .049   .080   .129 ||
|| Autumn   .000   .000   .005   .007   .012   .022   .038   .064   .086   .152   .413 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| Winter   .062       .038        .066     .552 2004            n/a             ||
|| Spring   .020       .012        .024     .271 2122            n/a             ||
|| Summer   .018       .014        .015     .129 2178            n/a             ||
|| Autumn   .031       .018        .033     .413 1943            n/a             ||
||--------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .005   .007   .010   .012   .020   .049   .111   .167   .203   .291   .396 ||
|| Feb      .005   .006   .007   .009   .013   .031   .053   .095   .140   .260   .485 ||
|| Mar      .003   .004   .005   .006   .009   .016   .031   .063   .098   .168   .272 ||
|| Apr      .001   .001   .002   .003   .005   .009   .018   .036   .054   .089   .130 ||
|| May      .001   .001   .002   .004   .007   .013   .021   .035   .048   .090   .142 ||
|| Jun      .002   .003   .004   .005   .008   .012   .021   .035   .049   .075   .116 ||
|| Jul      .000   .002   .005   .005   .010   .015   .022   .034   .043   .065   .089 ||
|| Aug      .002   .003   .004   .005   .009   .015   .024   .041   .056   .098   .129 ||
|| Sep      .002   .002   .005   .007   .012   .020   .038   .069   .105   .253   .413 ||
|| Oct      .000   .000   .003   .007   .012   .022   .037   .062   .079   .111   .172 ||
|| Nov      .003   .003   .005   .007   .013   .026   .038   .059   .076   .140   .222 ||
|| Dec      .003   .004   .006   .008   .021   .046   .092   .160   .220   .391   .555 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| Jan      .072       .046        .066     .391  721            n/a             ||
|| Feb      .045       .029        .051     .480  663            n/a             ||
|| Mar      .027       .018        .033     .269  672            n/a             ||
|| Apr      .015       .009        .018     .129  712            n/a             ||
|| May      .017       .012        .016     .141  738            n/a             ||
|| Jun      .017       .013        .015     .114  714            n/a             ||
|| Jul      .018       .013        .013     .089  724            n/a             ||
|| Aug      .020       .015        .018     .127  740            n/a             ||
|| Sep      .033       .021        .043     .411  715            n/a             ||
|| Oct      .029       .016        .024     .172  735            n/a             ||
|| Nov      .031       .023        .026     .219  493            n/a             ||
|| Dec      .071       .042        .076     .552  620            n/a             ||
||---------------------------------------BY YEAR---------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .002   .004   .006   .010   .018   .037   .073   .113   .214   .555 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||          Mean       Mean     Std Dev                                          ||
|| 1995     .032       .018        .043     .555 8247            n/a             ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              NOX Summary Statistics for 1995
                              Calgary Central Monitoring Station
                              Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||-------------------------------------BY SEASON---------------------------------------||
|| SEASON   MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| Winter   .006   .013   .024   .031   .045   .069   .115   .206   .286   .457   .723 ||
|| Spring   .005   .011   .014   .018   .025   .036   .055   .081   .108   .175   .305 ||
|| Summer   .004   .006   .010   .013   .019   .027   .040   .056   .068   .114   .180 ||
|| Autumn   .005   .010   .015   .019   .030   .046   .078   .134   .189   .317   .840 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N       Number of Exceedances       ||
||          Mean       Mean      Std Dev                                               ||
|| Winter    .098       .073        .087    .716 2138               n/a                ||
|| Spring    .045       .037        .033    .300 2186               n/a                ||
|| Summer    .032       .027        .020    .176 2175               n/a                ||
|| Autumn    .067       .049        .064    .835 2165               n/a                ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH    MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| Jan      .010   .019   .034   .041   .057   .095   .159   .253   .310   .483   .723 ||
|| Feb      .006   .009   .016   .024   .038   .057   .087   .145   .237   .366   .514 ||
|| Mar      .008   .011   .020   .025   .035   .050   .076   .115   .148   .230   .305 ||
|| Apr      .007   .011   .014   .016   .023   .032   .049   .068   .083   .139   .180 ||
|| May      .005   .009   .013   .015   .022   .030   .043   .057   .069   .106   .154 ||
|| Jun      .004   .006   .009   .012   .019   .026   .038   .057   .067   .092   .127 ||
|| Jul      .004   .006   .009   .012   .019   .027   .039   .051   .067   .106   .162 ||
|| Aug      .004   .006   .011   .013   .019   .028   .042   .059   .074   .126   .180 ||
|| Sep      .005   .008   .015   .018   .027   .038   .056   .090   .116   .218   .289 ||
|| Oct      .005   .008   .013   .018   .028   .044   .069   .121   .157   .264   .309 ||
|| Nov      .010   .012   .017   .023   .039   .067   .115   .197   .269   .407   .840 ||
|| Dec      .012   .017   .026   .031   .043   .065   .098   .188   .297   .493   .607 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N       Number of Exceedances       ||
||          Mean       Mean      Std Dev                                               ||
|| Jan       .123       .096        .095    .713  738               n/a                ||
|| Feb       .077       .058        .068    .507  660               n/a                ||
|| Mar       .062       .052        .042    .296  738               n/a                ||
|| Apr       .039       .033        .025    .171  716               n/a                ||
|| May       .035       .030        .019    .149  732               n/a                ||
|| Jun       .031       .026        .018    .123  714               n/a                ||
|| Jul       .031       .027        .019    .158  728               n/a                ||
|| Aug       .034       .028        .022    .175  733               n/a                ||
|| Sep       .048       .039        .036    .283  712               n/a                ||
|| Oct       .058       .045        .048    .304  738               n/a                ||
|| Nov       .093       .067        .087    .830  715               n/a                ||
|| Dec       .092       .069        .089    .594  740               n/a                ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR     MIN    1%     5%     10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| 1995     .004   .008   .013   .017   .026   .041   .069   .120   .177   .325   .840 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N       Number of Exceedances       ||
||          Mean       Mean      Std Dev                                               ||
|| 1995      .060       .044        .062    .836 8664               n/a                ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                        NOX Summary Statistics for 1995
                        Calgary Northwest Monitoring Station
                        Units are PPM (parts per million)
||-----------------------------------------------------------------------------||
|| No guidelines                                                               ||
||--------------------------------------BY SEASON------------------------------||
|| SEASON   MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter  .001   .004   .008   .012   .022   .034   .057   .110   .173   .340   .505 ||
|| Spring  .002   .003   .004   .006   .009   .015   .025   .043   .061   .124   .242 ||
|| Summer  .001   .002   .004   .005   .007   .011   .018   .027   .034   .050   .086 ||
|| Autumn  .001   .003   .005   .007   .011   .021   .037   .069   .099   .210   .458 ||
||                                                                             ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances ||
||           Mean       Mean     Std Dev                                       ||
|| Winter    .053       .035        .062    .504 2146             n/a          ||
|| Spring    .021       .015        .022    .240 2035             n/a          ||
|| Summer    .014       .011        .010    .085 2193             n/a          ||
|| Autumn    .032       .021        .039    .457 2168             n/a          ||
||--------------------------------------BY MONTH-------------------------------||
|| MONTH    MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan     .004   .005   .014   .019   .029   .044   .082   .166   .216   .363   .505 ||
|| Feb     .001   .003   .006   .008   .013   .027   .045   .082   .108   .179   .247 ||
|| Mar     .002   .003   .005   .007   .013   .024   .042   .070   .104   .149   .242 ||
|| Apr     .002   .002   .004   .005   .008   .013   .021   .031   .040   .060   .145 ||
|| May     .002   .003   .004   .005   .007   .012   .018   .026   .033   .054   .126 ||
|| Jun     .002   .003   .004   .005   .008   .011   .019   .029   .036   .050   .072 ||
|| Jul     .002   .002   .003   .004   .007   .011   .018   .026   .032   .048   .059 ||
|| Aug     .001   .002   .003   .004   .007   .010   .017   .027   .035   .055   .086 ||
|| Sep     .001   .003   .005   .007   .011   .016   .026   .040   .061   .113   .187 ||
|| Oct     .002   .002   .004   .005   .009   .018   .033   .065   .089   .143   .349 ||
|| Nov     .003   .004   .007   .009   .018   .031   .054   .095   .153   .286   .458 ||
|| Dec     .005   .007   .012   .016   .023   .032   .050   .095   .157   .420   .504 ||
||                                                                             ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances ||
||           Mean       Mean     Std Dev                                       ||
|| Jan       .070       .048        .072    .501  741             n/a          ||
|| Feb       .037       .025        .036    .246  667             n/a          ||
|| Mar       .034       .023        .032    .240  651             n/a          ||
|| Apr       .017       .013        .013    .143  648             n/a          ||
|| May       .014       .012        .011    .123  736             n/a          ||
|| Jun       .015       .012        .010    .070  715             n/a          ||
|| Jul       .014       .011        .009    .057  740             n/a          ||
|| Aug       .014       .011        .011    .085  738             n/a          ||
|| Sep       .022       .017        .021    .186  714             n/a          ||
|| Oct       .028       .018        .032    .347  739             n/a          ||
|| Nov       .047       .031        .053    .455  715             n/a          ||
|| Dec       .051       .035        .065    .498  738             n/a          ||
||--------------------------------------BY YEAR--------------------------------||
|| YEAR     MIN    1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995    .001   .003   .004   .006   .010   .018   .034   .061   .096   .222   .505 ||
||                                                                             ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N     Number of Exceedances ||
||           Mean       Mean     Std Dev                                       ||
|| 1995      .030       .019        .041    .504 8542             n/a          ||
||-----------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         NOX Summary Statistics for 1995
                         Calgary East Monitoring Station
                         Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| No guidelines                                                                   ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .003   .007   .015   .021   .041   .081   .169   .300   .381   .593   .793 ||
|| Spring   .003   .005   .008   .010   .018   .034   .060   .101   .143   .239   .422 ||
|| Summer   .001   .004   .007   .010   .017   .030   .047   .071   .095   .151   .264 ||
|| Autumn   .003   .006   .010   .014   .025   .049   .099   .189   .275   .461  1.070 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                                           ||
|| Winter    .126       .080        .124     .790 2138             n/a             ||
|| Spring    .048       .033        .047     .419 2191             n/a             ||
|| Summer    .037       .028        .029     .262 2182             n/a             ||
|| Autumn    .081       .050        .095    1.067 2166             n/a             ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .005   .012   .027   .035   .062   .123   .234   .359   .456   .674   .793 ||
|| Feb      .003   .005   .009   .013   .025   .054   .116   .213   .313   .512   .713 ||
|| Mar      .003   .004   .009   .013   .027   .051   .092   .153   .192   .317   .422 ||
|| Apr      .003   .003   .007   .009   .015   .031   .050   .072   .093   .159   .407 ||
|| May      .004   .005   .008   .009   .017   .027   .045   .072   .092   .144   .191 ||
|| Jun      .004   .006   .009   .010   .017   .032   .049   .071   .094   .159   .193 ||
|| Jul      .002   .004   .007   .009   .017   .030   .046   .068   .089   .134   .161 ||
|| Aug      .001   .004   .006   .009   .016   .029   .048   .073   .099   .161   .264 ||
|| Sep      .003   .007   .014   .017   .027   .043   .074   .128   .159   .242   .343 ||
|| Oct      .004   .005   .008   .011   .019   .045   .093   .176   .234   .423   .529 ||
|| Nov      .005   .006   .010   .015   .030   .068   .136   .292   .389   .540  1.070 ||
|| Dec      .007   .014   .019   .024   .041   .074   .161   .271   .350   .525   .672 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                                           ||
|| Jan       .168       .117        .141     .788  736             n/a             ||
|| Feb       .092       .054        .104     .710  668             n/a             ||
|| Mar       .070       .048        .062     .419  740             n/a             ||
|| Apr       .037       .027        .033     .404  716             n/a             ||
|| May       .036       .027        .029     .186  735             n/a             ||
|| Jun       .038       .030        .029     .188  710             n/a             ||
|| Jul       .036       .027        .026     .159  741             n/a             ||
|| Aug       .037       .027        .032     .262  731             n/a             ||
|| Sep       .059       .044        .049     .340  713             n/a             ||
|| Oct       .073       .044        .080     .525  738             n/a             ||
|| Nov       .112       .065        .130    1.064  715             n/a             ||
|| Dec       .117       .079        .110     .664  734             n/a             ||
||--------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .002   .005   .009   .012   .022   .042   .083   .167   .257   .456  1.070 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                                           ||
|| 1995      .073       .044        .090    1.068 8677             n/a             ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              NOX Summary Statistics for 1995
                              Fort Saskatchewan Monitoring Station
                              Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||--------------------------------------BY SEASON--------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| Winter  .002   .003   .006   .008   .013   .037   .092   .154   .195   .300   .408  ||
|| Spring  .000   .002   .003   .004   .005   .009   .018   .037   .055   .108   .268  ||
|| Summer  .001   .002   .003   .003   .005   .008   .015   .025   .033   .053   .089  ||
|| Autumn  .002   .002   .004   .004   .008   .015   .031   .061   .090   .170   .282  ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| Winter    .062       .035        .065    .406 2141             n/a                  ||
|| Spring    .016       .010        .021    .268 2183             n/a                  ||
|| Summer    .012       .009        .011    .088 2188             n/a                  ||
|| Autumn    .026       .016        .032    .280 2167             n/a                  ||
||--------------------------------------BY MONTH---------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| Jan     .003   .004   .008   .010   .016   .053   .124   .186   .221   .315   .408  ||
|| Feb     .002   .003   .005   .006   .010   .023   .049   .099   .131   .180   .231  ||
|| Mar     .000   .002   .004   .005   .008   .013   .029   .059   .093   .137   .268  ||
|| Apr     .001   .002   .002   .003   .004   .006   .011   .022   .035   .071   .172  ||
|| May     .002   .003   .003   .004   .006   .009   .017   .028   .037   .063   .110  ||
|| Jun     .002   .002   .003   .004   .005   .009   .016   .027   .035   .053   .089  ||
|| Jul     .002   .002   .003   .003   .005   .008   .013   .022   .029   .045   .053  ||
|| Aug     .001   .001   .002   .003   .004   .007   .015   .028   .038   .064   .089  ||
|| Sep     .002   .002   .003   .004   .006   .014   .031   .055   .095   .185   .258  ||
|| Oct     .002   .002   .003   .004   .006   .014   .033   .058   .075   .107   .133  ||
|| Nov     .002   .002   .004   .006   .010   .017   .031   .073   .116   .209   .282  ||
|| Dec     .003   .003   .006   .008   .015   .045   .094   .153   .196   .318   .392  ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| Jan       .079       .046        .075    .405  740             n/a                  ||
|| Feb       .038       .023        .040    .229  657             n/a                  ||
|| Mar       .025       .015        .029    .268  736             n/a                  ||
|| Apr       .011       .007        .015    .171  712             n/a                  ||
|| May       .014       .010        .013    .108  735             n/a                  ||
|| Jun       .012       .009        .011    .087  711             n/a                  ||
|| Jul       .010       .008        .009    .051  737             n/a                  ||
|| Aug       .012       .008        .013    .088  740             n/a                  ||
|| Sep       .025       .014        .033    .256  713             n/a                  ||
|| Oct       .023       .015        .024    .131  739             n/a                  ||
|| Nov       .030       .019        .038    .280  715             n/a                  ||
|| Dec       .067       .039        .067    .389  744             n/a                  ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX  ||
|| 1995    .000   .002   .003   .004   .006   .012   .030   .077   .118   .215   .408  ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| 1995      .029       .015        .043    .408 8679             n/a                  ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable           * - no data
```

```
                           NOX Summary Statistics for 1995
                           Fort McMurray Monitoring Station
                           Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||------------------------------------BY SEASON----------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .001    .002    .004    .008    .016    .029    .049    .070    .120    .187 ||
|| Spring   .000    .001    .002    .002    .004    .007    .013    .024    .038    .074    .186 ||
|| Summer   .001    .002    .002    .002    .004    .006    .011    .017    .022    .035    .059 ||
|| Autumn   .000    .001    .002    .002    .004    .010    .020    .035    .050    .094    .189 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| Winter    .023       .014        .023     .187 2155             n/a                 ||
|| Spring    .012       .007        .015     .186 2173             n/a                 ||
|| Summer    .008       .006        .007     .058 2202             n/a                 ||
|| Autumn    .016       .009        .019     .189 2106             n/a                 ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .001    .001    .003    .005    .009    .017    .029    .045    .063    .100    .122 ||
|| Feb      .000    .000    .002    .002    .006    .013    .024    .049    .072    .144    .187 ||
|| Mar      .000    .001    .001    .002    .005    .010    .019    .033    .052    .108    .186 ||
|| Apr      .001    .002    .002    .002    .004    .007    .010    .017    .023    .052    .075 ||
|| May      .001    .002    .002    .002    .003    .005    .013    .022    .038    .064    .151 ||
|| Jun      .001    .001    .002    .002    .004    .006    .012    .019    .024    .037    .050 ||
|| Jul      .001    .002    .002    .002    .004    .006    .009    .015    .019    .030    .040 ||
|| Aug      .001    .001    .002    .002    .004    .006    .011    .018    .025    .038    .059 ||
|| Sep      .001    .001    .002    .002    .004    .009    .021    .035    .050    .086    .136 ||
|| Oct      .000    .001    .002    .003    .005    .011    .022    .041    .061    .120    .189 ||
|| Nov      .000    .001    .001    .002    .004    .009    .017    .029    .041    .079    .137 ||
|| Dec      .001    .001    .002    .004    .008    .018    .031    .055    .076    .132    .159 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| Jan       .022       .016        .019     .121  742             n/a                 ||
|| Feb       .021       .011        .026     .187  672             n/a                 ||
|| Mar       .016       .009        .020     .186  739             n/a                 ||
|| Apr       .009       .006        .009     .074  715             n/a                 ||
|| May       .010       .007        .014     .150  719             n/a                 ||
|| Jun       .009       .007        .007     .049  717             n/a                 ||
|| Jul       .007       .006        .006     .039  744             n/a                 ||
|| Aug       .009       .006        .008     .058  741             n/a                 ||
|| Sep       .016       .009        .017     .135  717             n/a                 ||
|| Oct       .018       .010        .023     .189  671             n/a                 ||
|| Nov       .013       .007        .015     .137  718             n/a                 ||
|| Dec       .025       .016        .025     .158  741             n/a                 ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .001    .002    .002    .004    .009    .018    .032    .047    .092    .189 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean       Mean     Std Dev                                               ||
|| 1995      .015       .009        .018     .189 8636             n/a                 ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                                   NOX Summary Statistics for 1995
                                   Royal Park Monitoring Station (Vegreville)
                                   Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||-------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .006   .006    .007    .007    .010    .014    .022    .033    .041    .057    .106 ||
|| Spring   .006   .006    .008    .009    .009    .010    .012    .016    .019    .028    .050 ||
|| Summer   .008   .008    .009    .009    .010    .011    .014    .017    .020    .026    .056 ||
|| Autumn   .009   .009    .010    .011    .012    .014    .018    .023    .027    .035    .063 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Winter   .018       .015        .011      .100 2154             n/a                 ||
|| Spring   .011       .011        .004      .044 2195             n/a                 ||
|| Summer   .012       .012        .004      .048 2179             n/a                 ||
|| Autumn   .016       .015        .006      .054 2167             n/a                 ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .006   .006    .007    .008    .010    .015    .026    .038    .050    .062    .106 ||
|| Feb      .006   .006    .006    .007    .008    .011    .015    .020    .025    .035    .047 ||
|| Mar      .006   .006    .007    .008    .009    .010    .013    .017    .021    .038    .050 ||
|| Apr      .007   .008    .008    .008    .009    .010    .010    .012    .013    .017    .025 ||
|| May      .008   .009    .009    .009    .010    .011    .013    .017    .020    .028    .049 ||
|| Jun      .009   .009    .009    .010    .010    .012    .015    .018    .021    .035    .056 ||
|| Jul      .008   .008    .009    .009    .009    .011    .013    .016    .019    .028    .033 ||
|| Aug      .008   .008    .009    .009    .009    .010    .013    .016    .019    .023    .028 ||
|| Sep      .009   .009    .009    .010    .011    .013    .016    .020    .024    .036    .049 ||
|| Oct      .010   .010    .011    .011    .013    .015    .018    .023    .026    .034    .063 ||
|| Nov      .009   .009    .010    .011    .011    .014    .018    .026    .029    .035    .045 ||
|| Dec      .008   .009    .010    .010    .013    .017    .025    .034    .042    .053    .071 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Jan      .020       .016        .014      .100  740             n/a                 ||
|| Feb      .012       .011        .006      .041  670             n/a                 ||
|| Mar      .012       .011        .005      .044  740             n/a                 ||
|| Apr      .010       .010        .002      .018  717             n/a                 ||
|| May      .012       .012        .004      .041  738             n/a                 ||
|| Jun      .013       .013        .005      .047  702             n/a                 ||
|| Jul      .012       .011        .004      .025  741             n/a                 ||
|| Aug      .012       .011        .003      .020  736             n/a                 ||
|| Sep      .014       .014        .005      .040  715             n/a                 ||
|| Oct      .016       .016        .005      .053  736             n/a                 ||
|| Nov      .016       .015        .006      .036  716             n/a                 ||
|| Dec      .020       .018        .010      .063  744             n/a                 ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .006   .007    .008    .009    .010    .012    .016    .022    .028    .045    .106 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| 1995     .014       .013        .007      .100 8695             n/a                 ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
||-----------------------------------------------------------------------||
||                 Annual Average Concentration                          ||
||                 Year: 1995                                            ||
||                 Pollutant: NOX [ppm]                                   ||
||--------+--------------------------------------------------------------||
|| Year   |   EDMU  ERMU  EIMU  CDMU  CRMU  CIMU   Fort    Fort    Royal ||
||        |                                        Sask. McMurray  Park  ||
||--------+--------------------------------------------------------------||
|| 1976   |    **    **    **    **    **    **      *      **       *   ||
|| 1977   |    **    **    **    **    **    **      *       *       *   ||
|| 1978   |    **    **    **    **    **    **      *       *       *   ||
|| 1979   |    **    **    **    **    **    **      *      **a      *   ||
|| 1980   |    **    **    **    **    **    **      *       b       *   ||
||.1981   |    **    **    **    **    **    **      b      **       *   ||
|| 1982   |    **    **    **    **    **    **     **      **       *   ||
|| 1983   |    **    **    **    **    **    **     **      **       *   ||
|| 1984   |    **    **    **    **    **    **     **      **a      *   ||
|| 1985   |    **    **    **    **    **    **     **      **a      *   ||
|| 1986   |    **    **    **    **    **    **     **      **       *   ||
|| 1987   |   0.071 0.066 0.032 0.070 0.032 0.076  0.030    0.020     *   ||
|| 1988   |   0.063 0.055 0.032 0.075 0.032 0.082  0.026    0.019     *   ||
|| 1989   |   0.061 0.054 0.032 0.067 0.031 0.075 0.020a    0.018     *   ||
|| 1990   |   0.060 0.062 0.038 0.062 0.027 0.070  0.025    0.022     *   ||
|| 1991   |   0.062 0.067 0.044 0.071 0.030 0.076  0.025    0.019     *   ||
|| 1992   |   0.057 0.058 0.040 0.063 0.029 0.074  0.020    0.019     *   ||
|| 1993   |   0.056 0.056 0.030 0.060 0.026 0.073  0.027    0.012     *   ||
|| 1994   |   0.056 0.057 0.032 0.059 0.028 0.073  0.028    0.016  0.013 ||
|| 1995   |   0.055 0.046 0.032 0.060 0.030 0.073  0.029    0.015  0.014 ||
||--------+--------------------------------------------------------------||
```

a 50% to 75% of data available

b less than 50% of data available

** annual average not calculated

* no data available

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                              O3  Summary Statistics for 1995
                              Edmonton Central Monitoring Station
                              Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                    ||
|| Ambient 24-hour average guideline  =    .025 PPM                                   ||
||-------------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .000    .001    .001    .002    .006    .012    .020    .024    .029    .038 ||
|| Spring   .000    .001    .001    .003    .010    .018    .026    .034    .038    .045    .056 ||
|| Summer   .000    .001    .002    .003    .007    .015    .024    .032    .038    .053    .092 ||
|| Autumn   .000    .001    .002    .003    .005    .010    .017    .023    .028    .037    .041 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| Winter    .008       .003        .007    .038 2141     0(0.00%)     0(0.00%)       ||
|| Spring    .019       .013        .011    .056 2179     0(0.00%)    14(15.56%)      ||
|| Summer    .017       .011        .012    .092 2122     2(0.09%)     7(7.87%)       ||
|| Autumn    .012       .009        .008    .041 2128     0(0.00%)     1(1.14%)       ||
||-------------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .000    .000    .000    .001    .002    .005    .012    .017    .022    .030 ||
|| Feb      .000    .000    .001    .001    .003    .008    .018    .024    .027    .033    .038 ||
|| Mar      .000    .000    .001    .001    .006    .014    .022    .027    .029    .035    .040 ||
|| Apr      .000    .001    .002    .005    .011    .020    .027    .032    .035    .041    .049 ||
|| May      .000    .001    .003    .006    .014    .022    .032    .040    .043    .052    .056 ||
|| Jun      .000    .001    .002    .004    .009    .019    .031    .039    .047    .063    .092 ||
|| Jul      .000    .001    .003    .004    .009    .016    .023    .030    .034    .040    .050 ||
|| Aug      .000    .000    .001    .002    .005    .010    .019    .026    .029    .034    .040 ||
|| Sep      .000    .001    .002    .002    .005    .012    .020    .028    .034    .039    .041 ||
|| Oct      .001    .001    .002    .003    .005    .009    .016    .021    .024    .027    .034 ||
|| Nov      .002    .002    .004    .004    .006    .010    .015    .020    .025    .036    .037 ||
|| Dec      .002    .002    .003    .004    .005    .007    .014    .019    .022    .027    .029 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| Jan       .004       .001        .005    .030  732     0(0.00%)     0(0.00%)       ||
|| Feb       .011       .005        .009    .038  667     0(0.00%)     0(0.00%)       ||
|| Mar       .014       .008        .009    .040  738     0(0.00%)     0(0.00%)       ||
|| Apr       .019       .014        .010    .049  716     0(0.00%)     2(6.67%)       ||
|| May       .023       .018        .012    .056  725     0(0.00%)    12(41.38%)      ||
|| Jun       .021       .014        .015    .092  714     2(0.28%)     6(20.00%)      ||
|| Jul       .017       .013        .010    .050  738     0(0.00%)     1(3.23%)       ||
|| Aug       .012       .007        .009    .040  670     0(0.00%)     0(0.00%)       ||
|| Sep       .014       .009        .010    .041  694     0(0.00%)     0(0.00%)       ||
|| Oct       .011       .008        .007    .033  715     0(0.00%)     0(0.00%)       ||
|| Nov       .012       .010        .007    .035  719     0(0.00%)     1(3.33%)       ||
|| Dec       .010       .008        .006    .027  742     0(0.00%)     0(0.00%)       ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .000    .001    .002    .005    .012    .021    .029    .034    .043    .092 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||           Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| 1995      .014       .008        .011    .092 8570     2(0.02%)    22(6.18%)       ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                              O3  Summary Statistics for 1995
                              Edmonton Northwest Monitoring Station
                              Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                      ||
|| Ambient 24-hour average guideline  =    .025 PPM                                     ||
||-------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .000   .000    .000    .000    .005    .017    .028    .034    .042    .048 ||
|| Spring   .000    .000   .000    .002    .010    .024    .034    .041    .045    .052    .058 ||
|| Summer   .000    .000   .000    .002    .008    .017    .026    .037    .043    .056    .085 ||
|| Autumn   .000    .000   .000    .000    .001    .009    .019    .026    .030    .037    .052 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                    1 hour      24 hour          ||
|| Winter    .010       .000         .011    .048 2147     0(0.00%)      7(7.78%)       ||
|| Spring    .023       .010         .014    .058 2195     0(0.00%)     30(32.61%)      ||
|| Summer    .018       .008         .013    .085 2201     2(0.09%)     13(14.13%)      ||
|| Autumn    .011       .002         .010    .052 2106     0(0.00%)      1(1.15%)       ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .000   .000    .000    .000    .003    .011    .023    .031    .043    .046 ||
|| Feb      .000    .000   .000    .000    .003    .015    .028    .035    .038    .044    .048 ||
|| Mar      .000    .000   .000    .001    .006    .021    .033    .040    .043    .052    .056 ||
|| Apr      .000    .000   .000    .003    .013    .023    .032    .037    .040    .046    .049 ||
|| May      .000    .000   .001    .004    .013    .026    .037    .046    .049    .053    .058 ||
|| Jun      .000    .000   .000    .003    .010    .023    .037    .046    .052    .069    .085 ||
|| Jul      .000    .000   .001    .002    .009    .017    .025    .031    .035    .043    .053 ||
|| Aug      .000    .000   .000    .001    .006    .013    .021    .026    .029    .040    .044 ||
|| Sep      .000    .000   .000    .000    .001    .010    .021    .030    .035    .045    .052 ||
|| Oct      .000    .000   .000    .000    .001    .008    .018    .024    .026    .030    .030 ||
|| Nov      .000    .000   .000    .000    .002    .009    .018    .023    .026    .036    .037 ||
|| Dec      .000    .000   .000    .000    .000    .001    .012    .018    .021    .025    .028 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                    1 hour      24 hour          ||
|| Jan       .008       .000         .010    .046  741     0(0.00%)      0(0.00%)       ||
|| Feb       .016       .004         .013    .048  665     0(0.00%)      7(25.00%)      ||
|| Mar       .021       .008         .015    .056  736     0(0.00%)      7(22.58%)      ||
|| Apr       .022       .011         .012    .049  715     0(0.00%)      7(23.33%)      ||
|| May       .025       .013         .015    .058  744     0(0.00%)     16(51.61%)      ||
|| Jun       .024       .011         .017    .085  720     2(0.28%)     11(36.67%)      ||
|| Jul       .017       .010         .011    .053  741     0(0.00%)      2(6.45%)       ||
|| Aug       .014       .005         .010    .044  740     0(0.00%)      0(0.00%)       ||
|| Sep       .013       .002         .012    .052  720     0(0.00%)      0(0.00%)       ||
|| Oct       .010       .001         .009    .030  669     0(0.00%)      0(0.00%)       ||
|| Nov       .010       .002         .009    .037  717     0(0.00%)      1(3.33%)       ||
|| Dec       .006       .000         .007    .028  741     0(0.00%)      0(0.00%)       ||
||-------------------------------------BY YEAR-----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .000   .000    .000    .003    .014    .025    .035    .040    .050    .085 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                    1 hour      24 hour          ||
|| 1995      .016       .003         .013    .085 8649     2(0.02%)     51(14.13%)      ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable           * - no data
```

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                       Wind Summary for 1995
                Edmonton Northwest Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for O3  **
||----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                          Wind Speed (km/h)                           ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        0     0     0     0     0     0     0     0     0     0  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      0     0     0     0     0     0     0     0     0     0  ||
||    E        0     0     0     0     0     0     0     0     0     0  ||
||    ESE      0     0     0     0     0     0     0     0     0     0  ||
||    SE       0     0     0     0     0     0     0     0     0     0  ||
||    SSE      0     0     0     0     0     0     0     0     0     0  ||
||    S        0     0     0     0     0     0     0     0     0     0  ||
||    SSW      0     0     0     0     0     0     0     0     0     0  ||
||    SW       1     0     0     0     0     0     0     0     0     1  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        0     0     0     0     0     0     0     0     0     0  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL      1     0     0     0     0     0     0     0     0     1  ||
||                                                                      ||
||  CALM =      1 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                          Wind Speed (km/h)                           ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    E       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SW    50.0    .0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL   50.0    .0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||                                                                      ||
||  CALM = 50.00%                                                       ||
||  MISSING DATA =   .00%                                               ||
||----------------------------------------------------------------------||
                              Wind Summary for 1995
                       Edmonton Northwest Monitoring Station
       ** calculation is for exceedances of the 24-hour guideline  for O3  **
     ||-------------------------------------------------------------------------||
     || Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
     ||                                                                         ||
     ||                          Wind Speed (km/h)                              ||
     ||     Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
     ||     N       11     22    25     7     4     1     0     0     0    70  ||
     ||     NNE      2     16    27     8     3     1     0     0     0    57  ||
     ||     NE       4     27    51    14     7     3     0     0     0   106  ||
     ||     ENE      3     20    28     2     1     2     0     0     0    56  ||
     ||     E        8     23    21     5     0     0     0     0     0    57  ||
     ||     ESE     10     18    37     9     2     0     0     0     0    76  ||
     ||     SE      10     15    42    21    11     5     0     0     0   104  ||
     ||     SSE      9     15    17    17     8     0     0     0     0    66  ||
     ||     S        1     14    31     1     0     0     0     0     0    47  ||
     ||     SSW      3     11    16     3     0     0     0     0     0    33  ||
     ||     SW       3     16    11     0     0     0     0     0     0    30  ||
     ||     WSW      5     12    13     0     0     0     0     0     0    30  ||
     ||     W        6     23    43     8     2     7     1     0     0    90  ||
     ||     WNW      4     37    39    24    12     8     1     0     0   125  ||
     ||     NW       9     31    56    48     8     5     0     0     0   157  ||
     ||     NNW      7     22    23    26     4     1     0     0     0    83  ||
     ||   TOTAL     95    322   480   193    62    33     2     0     0  1187  ||
     ||                                                                         ||
     ||   CALM =     37 hours                                                   ||
     ||   MISSING DATA =     0 hours                                            ||
     ||-------------------------------------------------------------------------||
     ||    Joint Wind Direction and Speed Frequency Distribution (percent)     ||
     ||                                                                         ||
     ||                          Wind Speed (km/h)                              ||
     ||     Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
     ||     N       .9    1.8   2.0    .6    .3    .1    .0    .0    .0   5.7  ||
     ||     NNE     .2    1.3   2.2    .7    .2    .1    .0    .0    .0   4.7  ||
     ||     NE      .3    2.2   4.2   1.1    .6    .2    .0    .0    .0   8.7  ||
     ||     ENE     .2    1.6   2.3    .2    .1    .2    .0    .0    .0   4.6  ||
     ||     E       .7    1.9   1.7    .4    .0    .0    .0    .0    .0   4.7  ||
     ||     ESE     .8    1.5   3.0    .7    .2    .0    .0    .0    .0   6.2  ||
     ||     SE      .8    1.2   3.4   1.7    .9    .4    .0    .0    .0   8.5  ||
     ||     SSE     .7    1.2   1.4   1.4    .7    .0    .0    .0    .0   5.4  ||
     ||     S       .1    1.1   2.5    .1    .0    .0    .0    .0    .0   3.8  ||
     ||     SSW     .2     .9   1.3    .2    .0    .0    .0    .0    .0   2.7  ||
     ||     SW      .2    1.3    .9    .0    .0    .0    .0    .0    .0   2.5  ||
     ||     WSW     .4    1.0   1.1    .0    .0    .0    .0    .0    .0   2.5  ||
     ||     W       .5    1.9   3.5    .7    .2    .6    .1    .0    .0   7.4  ||
     ||     WNW     .3    3.0   3.2   2.0   1.0    .7    .1    .0    .0  10.2  ||
     ||     NW      .7    2.5   4.6   3.9    .7    .4    .0    .0    .0  12.8  ||
     ||     NNW     .6    1.8   1.9   2.1    .3    .1    .0    .0    .0   6.8  ||
     ||   TOTAL    7.8   26.3  39.2  15.8   5.1   2.7    .2    .0    .0  97.0  ||
     ||                                                                         ||
     ||   CALM =  3.02%                                                         ||
     ||   MISSING DATA =   .00%                                                 ||
     ||-------------------------------------------------------------------------||
                         O3  Summary Statistics for 1995
                         Edmonton East Monitoring Station
                         Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                    ||
|| Ambient 24-hour average guideline  =    .025 PPM                                   ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .001   .002   .002   .005   .012   .024   .031   .034   .039   .052 ||
|| Spring   .001   .002   .007   .012   .022   .032   .040   .046   .050   .058   .075 ||
|| Summer   .000   .001   .003   .005   .013   .022   .032   .043   .049   .063   .077 ||
|| Autumn   .000   .001   .003   .004   .009   .017   .026   .032   .037   .045   .061 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                    1 hour       24 hour      ||
|| Winter    .015       .009         .011      .052 2145    0(0.00%)     14(15.56%)   ||
|| Spring    .031       .026         .013      .074 2173    0(0.00%)     70(77.78%)   ||
|| Summer    .024       .018         .014      .077 2202    0(0.00%)     31(33.70%)   ||
|| Autumn    .018       .013         .011      .061 2172    0(0.00%)      8(8.79%)    ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .001   .002   .003   .008   .021   .027   .031   .035   .036 ||
|| Feb      .000   .001   .002   .003   .008   .019   .030   .036   .038   .042   .052 ||
|| Mar      .001   .002   .004   .008   .020   .031   .037   .042   .045   .050   .052 ||
|| Apr      .002   .003   .008   .015   .025   .033   .039   .043   .048   .051   .054 ||
|| May      .001   .002   .008   .013   .022   .033   .044   .052   .056   .061   .075 ||
|| Jun      .000   .001   .004   .008   .017   .030   .043   .052   .060   .066   .077 ||
|| Jul      .000   .001   .004   .006   .012   .021   .030   .037   .041   .048   .052 ||
|| Aug      .001   .001   .002   .004   .010   .018   .026   .032   .036   .048   .051 ||
|| Sep      .001   .002   .002   .003   .008   .018   .030   .038   .043   .055   .061 ||
|| Oct      .000   .001   .002   .003   .007   .015   .024   .029   .032   .036   .040 ||
|| Nov      .000   .002   .003   .005   .011   .018   .025   .029   .033   .040   .042 ||
|| Dec      .002   .002   .003   .003   .005   .011   .021   .029   .031   .034   .043 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                    1 hour       24 hour      ||
|| Jan       .012       .006         .010     .036  738     0(0.00%)      2(6.45%)    ||
|| Feb       .020       .014         .012     .052  667     0(0.00%)      9(32.14%)   ||
|| Mar       .028       .023         .012     .051  741     0(0.00%)     21(67.74%)   ||
|| Apr       .031       .028         .011     .052  717     0(0.00%)     26(86.67%)   ||
|| May       .033       .028         .015     .074  715     0(0.00%)     23(79.31%)   ||
|| Jun       .031       .024         .017     .077  718     0(0.00%)     22(73.33%)   ||
|| Jul       .022       .017         .011     .052  742     0(0.00%)      7(22.58%)   ||
|| Aug       .018       .014         .011     .050  742     0(0.00%)      2(6.45%)    ||
|| Sep       .020       .014         .013     .060  719     0(0.00%)      5(16.67%)   ||
|| Oct       .016       .012         .010     .040  741     0(0.00%)      0(0.00%)    ||
|| Nov       .018       .015         .009     .042  712     0(0.00%)      3(10.00%)   ||
|| Dec       .014       .010         .010     .041  740     0(0.00%)      3(9.68%)    ||
||--------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .001   .002   .004   .010   .021   .031   .040   .045   .057   .077 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances      ||
||           Mean       Mean     Std Dev                    1 hour       24 hour      ||
|| 1995      .022       .016         .014     .077 8692     0(0.00%)    123(33.88%)   ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         Wind Summary for 1995
                   Edmonton East Monitoring Station
  ** calculation is for exceedances of the 24-hour guideline  for O3  **
||------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                  ||
||                         Wind Speed (km/h)                        ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N       22    29    25    18    17     0     0     0     0   111 ||
||   NNE     16    37    23    17     1     0     0     0     0    94 ||
||   NE      16    54    60    19     5     1     1     0     0   156 ||
||   ENE     17    45    36    22    12     9     2     0     0   143 ||
||   E       16    69    64    39    18    11     1     0     0   218 ||
||   ESE     18    64   102    81    42    14     0     0     0   321 ||
||   SE      35   102   161   113    25    18     4     0     0   458 ||
||   SSE     35    62   114    72    28    15     5     0     0   331 ||
||   S       23    73    93    57    22     9     0     0     0   277 ||
||   SSW     15    54    55    26    11     0     0     0     0   161 ||
||   SW      22    35    32    26    11     3     3     1     0   133 ||
||   WSW     14    20    25    19    10     2     0     0     0    90 ||
||   W       14    17    34    12     7     4     3     0     0    91 ||
||   WNW     14    38    24     8    13     6    11     1     0   115 ||
||   NW      15    34    18    15    17    11     1     0     0   111 ||
||   NNW     18    29    25    25     9     2     0     0     0   108 ||
||  TOTAL   310   762   891   569   248   105    31     2     0  2918 ||
||                                                                  ||
||  CALM =      0 hours                                             ||
||  MISSING DATA =    34 hours                                      ||
||------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)  ||
||                                                                  ||
||                         Wind Speed (km/h)                        ||
||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||   N       .7   1.0    .8    .6    .6    .0    .0    .0    .0   3.8 ||
||   NNE     .5   1.3    .8    .6    .0    .0    .0    .0    .0   3.2 ||
||   NE      .5   1.8   2.0    .6    .2    .0    .0    .0    .0   5.3 ||
||   ENE     .6   1.5   1.2    .7    .4    .3    .1    .0    .0   4.8 ||
||   E       .5   2.3   2.2   1.3    .6    .4    .0    .0    .0   7.4 ||
||   ESE     .6   2.2   3.5   2.7   1.4    .5    .0    .0    .0  10.9 ||
||   SE     1.2   3.5   5.5   3.8    .8    .6    .1    .0    .0  15.5 ||
||   SSE    1.2   2.1   3.9   2.4    .9    .5    .2    .0    .0  11.2 ||
||   S       .8   2.5   3.2   1.9    .7    .3    .0    .0    .0   9.4 ||
||   SSW     .5   1.8   1.9    .9    .4    .0    .0    .0    .0   5.5 ||
||   SW      .7   1.2   1.1    .9    .4    .1    .1    .0    .0   4.5 ||
||   WSW     .5    .7    .8    .6    .3    .1    .0    .0    .0   3.0 ||
||   W       .5    .6   1.2    .4    .2    .1    .1    .0    .0   3.1 ||
||   WNW     .5   1.3    .8    .3    .4    .2    .4    .0    .0   3.9 ||
||   NW      .5   1.2    .6    .5    .6    .4    .0    .0    .0   3.8 ||
||   NNW     .6   1.0    .8    .8    .3    .1    .0    .0    .0   3.7 ||
||  TOTAL  10.5  25.8  30.2  19.3   8.4   3.6   1.1    .1    .0  98.8 ||
||                                                                  ||
||  CALM =    .00%                                                  ||
||  MISSING DATA =  1.15%                                           ||
||------------------------------------------------------------------||
                              O3  Summary Statistics for 1995
                              Calgary Central Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                  ||
|| Ambient 24-hour average guideline  =    .025 PPM                                 ||
||-----------------------------------BY SEASON-------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%   MAX ||
|| Winter  .000   .000   .000   .000   .001   .004   .010   .018   .023   .028  .033 ||
|| Spring  .000   .000   .001   .003   .008   .016   .026   .033   .036   .041  .047 ||
|| Summer  .000   .000   .001   .003   .007   .016   .024   .031   .035   .042  .049 ||
|| Autumn  .000   .000   .000   .000   .002   .006   .014   .021   .026   .035  .047 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                   1 hour     24 hour       ||
|| Winter    .007       .002        .007     .033 2110    0(0.00%)    0(0.00%)      ||
|| Spring    .017       .011        .011     .047 2199    0(0.00%)    8(8.70%)      ||
|| Summer    .016       .010        .011     .049 2195    0(0.00%)    6(6.52%)      ||
|| Autumn    .009       .002        .009     .047 2176    0(0.00%)    0(0.00%)      ||
||------------------------------------BY MONTH-------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%   MAX ||
|| Jan     .000   .000   .000   .000   .001   .002   .005   .009   .014   .020  .025 ||
|| Feb     .000   .001   .001   .001   .003   .007   .016   .025   .027   .031  .033 ||
|| Mar     .000   .000   .001   .001   .004   .012   .022   .029   .034   .037  .040 ||
|| Apr     .000   .000   .003   .005   .010   .019   .027   .034   .037   .044  .047 ||
|| May     .000   .000   .002   .004   .010   .018   .028   .034   .037   .041  .045 ||
|| Jun     .000   .000   .001   .003   .009   .021   .030   .037   .040   .045  .049 ||
|| Jul     .000   .000   .001   .003   .007   .015   .023   .029   .032   .038  .045 ||
|| Aug     .000   .000   .001   .002   .006   .013   .020   .025   .029   .034  .041 ||
|| Sep     .000   .000   .000   .001   .003   .009   .017   .026   .032   .041  .047 ||
|| Oct     .000   .000   .001   .001   .003   .009   .016   .022   .025   .030  .034 ||
|| Nov     .000   .000   .000   .000   .001   .002   .008   .017   .022   .026  .031 ||
|| Dec     .000   .000   .000   .000   .002   .005   .011   .016   .020   .026  .029 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                   1 hour     24 hour       ||
|| Jan       .004       .001        .004     .025  712    0(0.00%)    0(0.00%)      ||
|| Feb       .010       .006        .009     .033  656    0(0.00%)    0(0.00%)      ||
|| Mar       .014       .007        .010     .040  739    0(0.00%)    1(3.23%)      ||
|| Apr       .019       .013        .011     .047  718    0(0.00%)    6(20.00%)     ||
|| May       .019       .013        .011     .045  742    0(0.00%)    1(3.23%)      ||
|| Jun       .020       .011        .012     .049  717    0(0.00%)    6(20.00%)     ||
|| Jul       .015       .010        .010     .045  739    0(0.00%)    0(0.00%)      ||
|| Aug       .014       .009        .009     .041  739    0(0.00%)    0(0.00%)      ||
|| Sep       .011       .004        .010     .047  716    0(0.00%)    0(0.00%)      ||
|| Oct       .010       .005        .008     .034  742    0(0.00%)    0(0.00%)      ||
|| Nov       .005       .001        .007     .031  718    0(0.00%)    0(0.00%)      ||
|| Dec       .007       .002        .006     .029  742    0(0.00%)    0(0.00%)      ||
||-------------------------------------BY YEAR-------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%   MAX ||
|| 1995    .000   .000   .000   .001   .003   .010   .020   .028   .033   .040  .049 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances    ||
||           Mean       Mean     Std Dev                   1 hour     24 hour       ||
|| 1995      .012       .004        .011     .049 8680    0(0.00%)   14(3.87%)      ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                                  O3  Summary Statistics for 1995
                                  Calgary Northwest Monitoring Station
                                  Units are PPM (parts per million)
||-----------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .082 PPM                               ||
|| Ambient 24-hour average guideline  =   .025 PPM                              ||
||-------------------------------------BY SEASON-------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000   .000   .000   .004   .013   .023   .031   .035   .041   .048 ||
|| Spring   .000   .000   .002   .006   .016   .028   .040   .048   .050   .056   .062 ||
|| Summer   .000   .001   .003   .006   .014   .026   .036   .044   .049   .055   .065 ||
|| Autumn   .000   .001   .002   .002   .005   .015   .025   .035   .039   .049   .068 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean     Std Dev                   1 hour      24 hour   ||
|| Winter    .014       .004        .011     .048 2153     0(0.00%)     9(10.00%)  ||
|| Spring    .028       .018        .015     .062 2120     0(0.00%)    59(67.82%)  ||
|| Summer    .025       .019        .014     .065 2200     0(0.00%)    38(41.30%)  ||
|| Autumn    .017       .010        .012     .068 2170     0(0.00%)     9(9.89%)   ||
||-------------------------------------BY MONTH--------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .000   .000   .000   .000   .006   .015   .025   .029   .033   .035 ||
|| Feb      .000   .000   .000   .001   .005   .016   .030   .037   .040   .043   .048 ||
|| Mar      .000   .000   .000   .001   .009   .023   .035   .045   .048   .053   .055 ||
|| Apr      .000   .001   .007   .013   .021   .030   .041   .049   .051   .056   .059 ||
|| May      .000   .001   .005   .009   .018   .031   .042   .049   .052   .057   .062 ||
|| Jun      .000   .001   .003   .006   .017   .030   .041   .050   .053   .060   .065 ||
|| Jul      .000   .001   .002   .005   .012   .024   .035   .040   .046   .053   .061 ||
|| Aug      .001   .002   .004   .007   .013   .023   .032   .039   .043   .049   .055 ||
|| Sep      .000   .000   .002   .003   .007   .017   .028   .040   .047   .053   .068 ||
|| Oct      .000   .001   .002   .002   .007   .018   .028   .035   .037   .040   .042 ||
|| Nov      .000   .001   .002   .002   .005   .010   .020   .028   .034   .038   .041 ||
|| Dec      .001   .002   .004   .005   .009   .016   .023   .029   .031   .037   .039 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean     Std Dev                   1 hour      24 hour   ||
|| Jan       .009       .001        .009     .035  741     0(0.00%)     0(0.00%)   ||
|| Feb       .018       .006        .014     .048  670     0(0.00%)     8(28.57%)  ||
|| Mar       .023       .009        .016     .055  668     0(0.00%)    12(44.44%)  ||
|| Apr       .030       .025        .013     .059  718     0(0.00%)    20(66.67%)  ||
|| May       .030       .023        .015     .062  734     0(0.00%)    27(90.00%)  ||
|| Jun       .029       .022        .016     .065  717     0(0.00%)    22(73.33%)  ||
|| Jul       .024       .017        .014     .061  742     0(0.00%)    11(35.48%)  ||
|| Aug       .023       .019        .012     .054  741     0(0.00%)     5(16.13%)  ||
|| Sep       .019       .011        .014     .068  713     0(0.00%)     5(16.67%)  ||
|| Oct       .018       .012        .012     .042  741     0(0.00%)     3(9.68%)   ||
|| Nov       .013       .009        .010     .041  716     0(0.00%)     1(3.33%)   ||
|| Dec       .016       .014        .009     .038  742     0(0.00%)     1(3.23%)   ||
||-------------------------------------BY YEAR---------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000   .001   .003   .008   .020   .032   .041   .047   .054   .068 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean       Mean     Std Dev                   1 hour      24 hour   ||
|| 1995      .021       .011        .014     .068 8643     0(0.00%)   115(31.94%)  ||
||-----------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          Wind Summary for 1995
                   Calgary Northwest Monitoring Station
      ** calculation is for exceedances of the 24-hour guideline  for O3  **
    ||------------------------------------------------------------------||
    || Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
    ||                                                                  ||
    ||                          Wind Speed (km/h)                       ||
    ||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
    ||    N       29     57    29    10     3     3     1     0     0   132  ||
    ||    NNE     37     47    20     6     0     0     0     0     0   110  ||
    ||    NE      45     50    12     0     0     0     0     0     0   107  ||
    ||    ENE     33     53     8     0     0     0     0     0     0    94  ||
    ||    E       47     58    12     1     0     0     0     0     0   118  ||
    ||    ESE     37     49    10     1     0     0     0     0     0    97  ||
    ||    SE      48     74    33     6     0     0     0     0     0   161  ||
    ||    SSE     31     70    31    13     1     0     0     0     0   146  ||
    ||    S       27     31    20     4     1     0     0     0     0    83  ||
    ||    SSW     14     20     7     4     1     0     0     0     0    46  ||
    ||    SW      20     21     7     2     3     1     0     0     0    54  ||
    ||    WSW     24     53    22    21     5    10     2     0     0   137  ||
    ||    W       84    110    56    44    16    15     3     0     0   328  ||
    ||    WNW    116    284   113    21     7     1     0     0     0   542  ||
    ||    NW      88    187    60    21     2     4     0     0     0   362  ||
    ||    NNW     32     72    46    28     3     2     0     0     0   183  ||
    ||  TOTAL    712   1236   486   182    42    36     6     0     0  2700  ||
    ||                                                                  ||
    ||  CALM =     48 hours                                             ||
    ||  MISSING DATA =     12 hours                                     ||
    ||------------------------------------------------------------------||
    ||   Joint Wind Direction and Speed Frequency Distribution (percent)   ||
    ||                                                                  ||
    ||                          Wind Speed (km/h)                       ||
    ||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
    ||    N      1.1    2.1   1.1    .4    .1    .1    .0    .0    .0   4.8  ||
    ||    NNE    1.3    1.7    .7    .2    .0    .0    .0    .0    .0   4.0  ||
    ||    NE     1.6    1.8    .4    .0    .0    .0    .0    .0    .0   3.9  ||
    ||    ENE    1.2    1.9    .3    .0    .0    .0    .0    .0    .0   3.4  ||
    ||    E      1.7    2.1    .4    .0    .0    .0    .0    .0    .0   4.3  ||
    ||    ESE    1.3    1.8    .4    .0    .0    .0    .0    .0    .0   3.5  ||
    ||    SE     1.7    2.7   1.2    .2    .0    .0    .0    .0    .0   5.8  ||
    ||    SSE    1.1    2.5   1.1    .5    .0    .0    .0    .0    .0   5.3  ||
    ||    S      1.0    1.1    .7    .1    .0    .0    .0    .0    .0   3.0  ||
    ||    SSW     .5     .7    .3    .1    .0    .0    .0    .0    .0   1.7  ||
    ||    SW      .7     .8    .3    .1    .1    .0    .0    .0    .0   2.0  ||
    ||    WSW     .9    1.9    .8    .8    .2    .4    .1    .0    .0   5.0  ||
    ||    W      3.0    4.0   2.0   1.6    .6    .5    .1    .0    .0  11.9  ||
    ||    WNW    4.2   10.3   4.1    .8    .3    .0    .0    .0    .0  19.6  ||
    ||    NW     3.2    6.8   2.2    .8    .1    .1    .0    .0    .0  13.1  ||
    ||    NNW    1.2    2.6   1.7   1.0    .1    .1    .0    .0    .0   6.6  ||
    ||  TOTAL   25.8   44.8  17.6   6.6   1.5   1.3    .2    .0    .0  97.8  ||
    ||                                                                  ||
    ||  CALM =  1.74%                                                   ||
    ||  MISSING DATA =   .43%                                           ||
    ||------------------------------------------------------------------||
                              O3  Summary Statistics for 1995
                              Calgary East Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .082 PPM                                   ||
|| Ambient 24-hour average guideline  =   .025 PPM                                  ||
||-------------------------------------BY SEASON-----------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000   .000   .000   .000   .003   .013   .024   .030   .036   .043 ||
|| Spring   .000   .000   .000   .001   .007   .022   .034   .042   .045   .051   .057 ||
|| Summer   .000   .000   .001   .002   .007   .021   .030   .037   .041   .048   .059 ||
|| Autumn   .000   .000   .000   .000   .001   .008   .019   .029   .033   .042   .059 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean       Mean      Std Dev                    1 hour      24 hour     ||
|| Winter     .008       .000          .010     .043 2150     0(0.00%)      3(3.33%)     ||
|| Spring     .022       .007          .015     .057 2198     0(0.00%)     27(29.35%)    ||
|| Summer     .020       .009          .013     .059 2196     0(0.00%)     13(14.13%)    ||
|| Autumn     .011       .002          .011     .059 2174     0(0.00%)      0(0.00%)     ||
||-------------------------------------BY MONTH------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .000   .000   .000   .000   .001   .006   .014   .019   .028   .032 ||
|| Feb      .000   .000   .000   .000   .001   .009   .025   .033   .035   .040   .043 ||
|| Mar      .000   .000   .000   .000   .002   .017   .030   .039   .042   .049   .050 ||
|| Apr      .000   .000   .001   .003   .012   .024   .035   .043   .046   .051   .054 ||
|| May      .000   .000   .000   .002   .010   .024   .036   .043   .046   .054   .057 ||
|| Jun      .000   .000   .000   .001   .009   .025   .034   .041   .046   .052   .059 ||
|| Jul      .000   .000   .001   .002   .007   .020   .029   .036   .038   .045   .049 ||
|| Aug      .000   .000   .001   .002   .007   .019   .028   .032   .036   .042   .052 ||
|| Sep      .000   .000   .000   .000   .002   .010   .024   .034   .038   .047   .059 ||
|| Oct      .000   .000   .000   .000   .002   .011   .023   .030   .032   .037   .042 ||
|| Nov      .000   .000   .000   .000   .000   .004   .011   .021   .027   .033   .035 ||
|| Dec      .000   .000   .000   .000   .001   .004   .012   .020   .023   .030   .038 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean       Mean      Std Dev                    1 hour      24 hour     ||
|| Jan        .004       .000          .006     .032  742     0(0.00%)      0(0.00%)     ||
|| Feb        .013       .001          .013     .043  669     0(0.00%)      3(10.71%)    ||
|| Mar        .018       .002          .015     .050  742     0(0.00%)      3(9.68%)     ||
|| Apr        .024       .013          .014     .054  716     0(0.00%)     13(43.33%)    ||
|| May        .023       .010          .015     .057  740     0(0.00%)     11(35.48%)    ||
|| Jun        .023       .009          .015     .059  714     0(0.00%)     10(33.33%)    ||
|| Jul        .019       .009          .013     .049  742     0(0.00%)      1(3.23%)     ||
|| Aug        .018       .010          .012     .052  740     0(0.00%)      2(6.45%)     ||
|| Sep        .014       .003          .013     .059  717     0(0.00%)      0(0.00%)     ||
|| Oct        .013       .002          .011     .042  741     0(0.00%)      0(0.00%)     ||
|| Nov        .007       .001          .009     .035  716     0(0.00%)      0(0.00%)     ||
|| Dec        .007       .001          .008     .038  739     0(0.00%)      0(0.00%)     ||
||-------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000   .000   .000   .002   .012   .026   .035   .040   .048   .059 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances     ||
||           Mean       Mean      Std Dev                    1 hour      24 hour     ||
|| 1995       .015       .003          .014     .059 8718     0(0.00%)     43(11.78%)    ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                     Calgary East Monitoring Station
  ** calculation is for exceedances of the 24-hour guideline  for O3  **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N        6    30    32    24    13     4     0     0     0   109  ||
||    NNE      5    21    18    11     0     0     0     0     0    55  ||
||    NE      11    17     6     0     0     0     0     0     0    34  ||
||    ENE      7    14     6     0     0     0     0     0     0    27  ||
||    E       12     6     3     2     0     0     0     0     0    23  ||
||    ESE     12    10    10     1     0     0     0     0     0    33  ||
||    SE      17    18    17     2     3     4     0     0     0    61  ||
||    SSE     18    17    22     2     5     0     0     0     0    64  ||
||    S       18     8     7     4     1     0     0     0     0    38  ||
||    SSW     12     1     2     0     1     3     0     0     0    19  ||
||    SW      21     5     4     0     2     0     0     0     0    32  ||
||    WSW     16    10     2     1     0     0     0     0     0    29  ||
||    W       34    29    19    15     8     3     1     0     0   109  ||
||    WNW     10    44    43    17     2     2     0     0     0   118  ||
||    NW       8    36    49    34    10     1     0     0     0   138  ||
||    NNW      8    26    37    42    19     6     2     0     0   140  ||
||  TOTAL    215   292   277   155    64    23     3     0     0  1029  ||
||                                                                      ||
||  CALM =      3 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||    Dir    1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL ||
||    N       .6   2.9   3.1   2.3   1.3    .4    .0    .0    .0  10.6  ||
||    NNE     .5   2.0   1.7   1.1    .0    .0    .0    .0    .0   5.3  ||
||    NE     1.1   1.6    .6    .0    .0    .0    .0    .0    .0   3.3  ||
||    ENE     .7   1.4    .6    .0    .0    .0    .0    .0    .0   2.6  ||
||    E      1.2    .6    .3    .2    .0    .0    .0    .0    .0   2.2  ||
||    ESE    1.2   1.0   1.0    .1    .0    .0    .0    .0    .0   3.2  ||
||    SE     1.6   1.7   1.6    .2    .3    .4    .0    .0    .0   5.9  ||
||    SSE    1.7   1.6   2.1    .2    .5    .0    .0    .0    .0   6.2  ||
||    S      1.7    .8    .7    .4    .1    .0    .0    .0    .0   3.7  ||
||    SSW    1.2    .1    .2    .0    .1    .3    .0    .0    .0   1.8  ||
||    SW     2.0    .5    .4    .0    .2    .0    .0    .0    .0   3.1  ||
||    WSW    1.6   1.0    .2    .1    .0    .0    .0    .0    .0   2.8  ||
||    W      3.3   2.8   1.8   1.5    .8    .3    .1    .0    .0  10.6  ||
||    WNW    1.0   4.3   4.2   1.6    .2    .2    .0    .0    .0  11.4  ||
||    NW      .8   3.5   4.7   3.3   1.0    .1    .0    .0    .0  13.4  ||
||    NNW     .8   2.5   3.6   4.1   1.8    .6    .2    .0    .0  13.6  ||
||  TOTAL   20.8  28.3  26.8  15.0   6.2   2.2    .3    .0    .0  99.7  ||
||                                                                      ||
||  CALM =    .29%                                                      ||
||  MISSING DATA =    .00%                                              ||
||-----------------------------------------------------------------------||
                        O3  Summary Statistics for 1995
                        Fort Saskatchewan Monitoring Station
                        Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .082 PPM                                 ||
|| Ambient 24-hour average guideline  =   .025 PPM                                ||
||-------------------------------------BY SEASON---------------------------------||
|| SEASON    MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000    .001    .001    .001    .002    .013    .029    .038    .041    .046    .053 ||
|| Spring   .001    .001    .005    .013    .024    .035    .045    .053    .058    .067    .076 ||
|| Summer   .000    .001    .004    .008    .015    .025    .038    .053    .062    .073    .092 ||
|| Autumn   .000    .000    .001    .002    .009    .020    .030    .037    .042    .052    .066 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                     1 hour      24 hour   ||
|| Winter    .017      .009        .014      .053 2149     0(0.00%)    26(28.89%) ||
|| Spring    .034      .029        .015      .075 2200     0(0.00%)    85(92.39%) ||
|| Summer    .028      .021        .017      .092 2199     5(0.23%)    48(52.17%) ||
|| Autumn    .020      .011        .013      .066 2177     0(0.00%)    15(16.48%) ||
||-------------------------------------BY MONTH----------------------------------||
|| MONTH     MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000    .001    .001    .001    .002    .009    .026    .032    .038    .041    .043 ||
|| Feb      .000    .001    .001    .002    .009    .025    .038    .042    .045    .049    .053 ||
|| Mar      .001    .001    .002    .005    .020    .032    .042    .048    .050    .056    .058 ||
|| Apr      .001    .003    .014    .019    .029    .036    .044    .050    .055    .060    .065 ||
|| May      .001    .002    .008    .014    .024    .038    .051    .060    .065    .072    .076 ||
|| Jun      .000    .002    .006    .011    .021    .034    .053    .066    .071    .078    .092 ||
|| Jul      .000    .001    .005    .009    .017    .026    .038    .049    .055    .066    .087 ||
|| Aug      .001    .001    .002    .005    .012    .020    .028    .036    .041    .046    .051 ||
|| Sep      .000    .001    .001    .002    .007    .020    .033    .042    .049    .062    .066 ||
|| Oct      .000    .000    .001    .002    .008    .018    .028    .035    .038    .044    .049 ||
|| Nov      .000    .000    .001    .003    .012    .022    .030    .034    .038    .045    .046 ||
|| Dec      .002    .002    .002    .002    .002    .010    .025    .034    .036    .039    .041 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                     1 hour      24 hour   ||
|| Jan       .014      .006        .013      .043  741     0(0.00%)     6(19.35%) ||
|| Feb       .024      .014        .015      .053  664     0(0.00%)    13(46.43%) ||
|| Mar       .030      .023        .015      .057  742     0(0.00%)    25(80.65%) ||
|| Apr       .036      .032        .012      .064  718     0(0.00%)    30(100.00%)||
|| May       .037      .032        .017      .075  740     0(0.00%)    30(96.77%) ||
|| Jun       .037      .029        .020      .092  718     4(0.56%)    28(93.33%) ||
|| Jul       .028      .021        .015      .087  742     1(0.13%)    18(58.06%) ||
|| Aug       .020      .016        .011      .050  739     0(0.00%)     2(6.45%)  ||
|| Sep       .021      .013        .015      .066  719     0(0.00%)     4(13.33%) ||
|| Oct       .018      .010        .012      .049  741     0(0.00%)     1(3.23%)  ||
|| Nov       .021      .012        .012      .046  717     0(0.00%)    10(33.33%) ||
|| Dec       .014      .008        .012      .039  744     0(0.00%)     7(22.58%) ||
||-------------------------------------BY YEAR-----------------------------------||
|| YEAR      MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000    .001    .001    .002    .011    .025    .036    .046    .054    .067    .092 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                     1 hour      24 hour   ||
|| 1995      .025      .016        .017      .092 8725     5(0.06%)   174(47.67%) ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                           Wind Summary for 1995
                    Fort Saskatchewan Monitoring Station
   ** calculation is for exceedances of the 1-hour guideline  for O3  **
 ||-----------------------------------------------------------------------||
 || Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
 ||                                                                       ||
 ||                         Wind Speed (km/h)                             ||
 ||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
 ||    N        0     0     0     0     0     0     0     0     0     0  ||
 ||    NNE      1     0     0     0     0     0     0     0     0     1  ||
 ||    NE       0     0     0     0     0     0     0     0     0     0  ||
 ||    ENE      0     0     0     0     0     0     0     0     0     0  ||
 ||    E        0     1     0     0     0     0     0     0     0     1  ||
 ||    ESE      0     0     0     0     0     0     0     0     0     0  ||
 ||    SE       0     0     0     0     0     0     0     0     0     0  ||
 ||    SSE      0     0     0     0     0     0     0     0     0     0  ||
 ||    S        2     0     0     0     0     0     0     0     0     2  ||
 ||    SSW      0     0     0     0     0     0     0     0     0     0  ||
 ||    SW       0     1     0     0     0     0     0     0     0     1  ||
 ||    WSW      0     0     0     0     0     0     0     0     0     0  ||
 ||    W        0     0     0     0     0     0     0     0     0     0  ||
 ||    WNW      0     0     0     0     0     0     0     0     0     0  ||
 ||    NW       0     0     0     0     0     0     0     0     0     0  ||
 ||    NNW      0     0     0     0     0     0     0     0     0     0  ||
 ||  TOTAL      3     2     0     0     0     0     0     0     0     5  ||
 ||                                                                       ||
 ||  CALM =      0 hours                                                  ||
 ||  MISSING DATA =     0 hours                                           ||
 ||-----------------------------------------------------------------------||
 ||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
 ||                                                                       ||
 ||                         Wind Speed (km/h)                             ||
 ||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
 ||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    NNE   20.0    .0    .0    .0    .0    .0    .0    .0    .0  20.0  ||
 ||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    ENE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    E       .0  20.0    .0    .0    .0    .0    .0    .0    .0  20.0  ||
 ||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    SSE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    S     40.0    .0    .0    .0    .0    .0    .0    .0    .0  40.0  ||
 ||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    SW      .0  20.0    .0    .0    .0    .0    .0    .0    .0  20.0  ||
 ||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
 ||  TOTAL   60.0  40.0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
 ||                                                                       ||
 ||  CALM =    .00%                                                       ||
 ||  MISSING DATA =   .00%                                                ||
 ||-----------------------------------------------------------------------||
                              Wind Summary for 1995
                        Fort Saskatchewan Monitoring Station
      ** calculation is for exceedances of the 24-hour guideline  for O3  **
   ||-----------------------------------------------------------------------||
   || Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
   ||                                                                       ||
   ||                           Wind Speed (km/h)                           ||
   ||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
   ||   N       45    54    42    27     2     2     1     0     0   173  ||
   ||   NNE     26    37    32    16     4     2     0     0     0   117  ||
   ||   NE      52    79    71    32     8     2     0     0     0   244  ||
   ||   ENE     72   154    80    26    13     4     0     0     0   349  ||
   ||   E       98   155   117    48    19    10     5     0     0   452  ||
   ||   ESE     53   115    86    60    31    11     4     0     0   360  ||
   ||   SE      68   111    61    32    12     1     1     0     0   286  ||
   ||   SSE     68    63    50    22     2     0     0     0     0   205  ||
   ||   S       87   119    26     9     0     0     0     0     0   241  ||
   ||   SSW     87    67    24     1     0     0     0     0     0   179  ||
   ||   SW      86    75    41     8     0     0     0     0     0   210  ||
   ||   WSW     49    91    51     9     0     0     0     0     0   200  ||
   ||   W       54    80    81    50    16     4     0     0     0   285  ||
   ||   WNW     47    62    70    62    26    13     2     1     0   283  ||
   ||   NW      58    71    72    69    26     7     1     1     0   305  ||
   ||   NNW     59    52    19    13    10     2     1     0     0   156  ||
   || TOTAL   1009  1385   923   484   169    58    15     2     0  4045  ||
   ||                                                                       ||
   || CALM =    115 hours                                                   ||
   || MISSING DATA =     16 hours                                           ||
   ||-----------------------------------------------------------------------||
   ||  Joint Wind Direction and Speed Frequency Distribution (percent)      ||
   ||                                                                       ||
   ||                           Wind Speed (km/h)                           ||
   ||   Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
   ||   N      1.1   1.3   1.0    .6    .0    .0    .0    .0    .0   4.1  ||
   ||   NNE     .6    .9    .8    .4    .1    .0    .0    .0    .0   2.8  ||
   ||   NE     1.2   1.9   1.7    .8    .2    .0    .0    .0    .0   5.8  ||
   ||   ENE    1.7   3.7   1.9    .6    .3    .1    .0    .0    .0   8.4  ||
   ||   E      2.3   3.7   2.8   1.1    .5    .2    .1    .0    .0  10.8  ||
   ||   ESE    1.3   2.8   2.1   1.4    .7    .3    .1    .0    .0   8.6  ||
   ||   SE     1.6   2.7   1.5    .8    .3    .0    .0    .0    .0   6.8  ||
   ||   SSE    1.6   1.5   1.2    .5    .0    .0    .0    .0    .0   4.9  ||
   ||   S      2.1   2.8    .6    .2    .0    .0    .0    .0    .0   5.8  ||
   ||   SSW    2.1   1.6    .6    .0    .0    .0    .0    .0    .0   4.3  ||
   ||   SW     2.1   1.8   1.0    .2    .0    .0    .0    .0    .0   5.0  ||
   ||   WSW    1.2   2.2   1.2    .2    .0    .0    .0    .0    .0   4.8  ||
   ||   W      1.3   1.9   1.9   1.2    .4    .1    .0    .0    .0   6.8  ||
   ||   WNW    1.1   1.5   1.7   1.5    .6    .3    .0    .0    .0   6.8  ||
   ||   NW     1.4   1.7   1.7   1.7    .6    .2    .0    .0    .0   7.3  ||
   ||   NNW    1.4   1.2    .5    .3    .2    .0    .0    .0    .0   3.7  ||
   || TOTAL   24.2  33.2  22.1  11.6   4.0   1.4    .4    .0    .0  96.9  ||
   ||                                                                       ||
   || CALM =  2.75%                                                         ||
   || MISSING DATA =    .38%                                                ||
   ||-----------------------------------------------------------------------||
                              O3  Summary Statistics for 1995
                              Fort McMurray Monitoring Station
                              Units are PPM (parts per million)
||--------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                ||
|| Ambient 24-hour average guideline  =    .025 PPM                               ||
||-------------------------------------BY SEASON----------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .001   .002   .006   .014   .023   .032   .037   .041   .043 ||
|| Spring   .000   .002   .006   .010   .018   .029   .039   .046   .048   .054   .067 ||
|| Summer   .000   .000   .001   .002   .008   .017   .026   .035   .043   .059   .071 ||
|| Autumn   .000   .000   .000   .001   .005   .013   .022   .027   .030   .035   .064 ||
||                                                                                ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                  1 hour      24 hour     ||
|| Winter    .016       .008         .011     .043 1982     0(0.00%)     11(13.41%) ||
|| Spring    .028       .023         .013     .067 2016     0(0.00%)     56(68.29%) ||
|| Summer    .018       .010         .013     .071 2205     0(0.00%)     15(16.30%) ||
|| Autumn    .014       .005         .010     .064 2181     0(0.00%)      4(4.40%)  ||
||-------------------------------------BY MONTH-----------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .001   .003   .004   .008   .014   .023   .032   .037   .040   .041 ||
|| Feb      .000   .001   .002   .004   .012   .020   .032   .038   .041   .043   .043 ||
|| Mar      .000   .001   .004   .008   .013   .022   .033   .041   .043   .050   .056 ||
|| Apr      .001   .003   .008   .011   .020   .031   .038   .044   .046   .050   .052 ||
|| May      .000   .002   .008   .012   .020   .034   .044   .049   .051   .059   .067 ||
|| Jun      .000   .001   .002   .006   .012   .024   .034   .047   .056   .066   .071 ||
|| Jul      .000   .000   .001   .002   .008   .016   .024   .031   .035   .044   .053 ||
|| Aug      .000   .000   .000   .001   .005   .013   .021   .027   .030   .035   .037 ||
|| Sep      .000   .000   .000   .000   .003   .013   .023   .029   .033   .043   .064 ||
|| Oct      .000   .000   .000   .000   .003   .009   .017   .023   .026   .029   .031 ||
|| Nov      .000   .000   .001   .004   .011   .019   .025   .029   .030   .033   .034 ||
|| Dec      .000   .000   .000   .001   .003   .009   .020   .026   .028   .032   .034 ||
||                                                                                ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                  1 hour      24 hour     ||
|| Jan       .016       .012         .010     .041  742     0(0.00%)      4(12.90%) ||
|| Feb       .021       .016         .012     .043  497     0(0.00%)      6(30.00%) ||
|| Mar       .023       .018         .012     .056  577     0(0.00%)      8(34.78%) ||
|| Apr       .029       .026         .012     .051  718     0(0.00%)     23(76.67%) ||
|| May       .032       .027         .014     .067  721     0(0.00%)     25(86.21%) ||
|| Jun       .025       .017         .016     .071  719     0(0.00%)     14(46.67%) ||
|| Jul       .017       .010         .011     .053  744     0(0.00%)      0(0.00%)  ||
|| Aug       .014       .006         .010     .037  742     0(0.00%)      1(3.23%)  ||
|| Sep       .014       .004         .011     .064  719     0(0.00%)      1(3.33%)  ||
|| Oct       .011       .003         .008     .031  743     0(0.00%)      0(0.00%)  ||
|| Nov       .018       .011         .009     .034  719     0(0.00%)      3(10.00%) ||
|| Dec       .012       .004         .010     .034  743     0(0.00%)      1(3.23%)  ||
||-------------------------------------BY YEAR------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .001   .002   .008   .018   .028   .038   .043   .052   .071 ||
||                                                                                ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances   ||
||           Mean       Mean      Std Dev                  1 hour      24 hour     ||
|| 1995      .019       .010         .013     .071 8384     0(0.00%)     86(24.78%) ||
||--------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                          Wind Summary for 1995
                      Fort McMurray Monitoring Station
          ** calculation is for exceedances of the 24-hour guideline  for O3  **
        ||-------------------------------------------------------------------||
        || Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
        ||                                                                   ||
        ||                          Wind Speed (km/h)                        ||
        ||    Dir     1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
        ||    N       109    201   113    41     5     0     0     0     0   469  ||
        ||    NNE      42     20     3     0     0     0     0     0     0    65  ||
        ||    NE       33      3     0     0     0     0     0     0     0    36  ||
        ||    ENE      61     14    11     0     0     0     0     0     0    86  ||
        ||    E        54     11     1     0     0     0     0     0     0    66  ||
        ||    ESE      58     33    15     0     0     0     0     0     0   106  ||
        ||    SE      114    164    69     0     0     0     0     0     0   347  ||
        ||    SSE     106     42    15     0     0     0     0     0     0   163  ||
        ||    S        43     13     0     0     0     0     0     0     0    56  ||
        ||    SSW      35      5     0     0     0     0     0     0     0    40  ||
        ||    SW       49     36    15     8     0     0     0     0     0   108  ||
        ||    WSW      28     38    17     7     0     0     0     0     0    90  ||
        ||    W        50     15     8    11     2     1     0     0     0    87  ||
        ||    WNW      45      8    16    10     6     2     1     0     0    88  ||
        ||    NW       60     16    12    11     7     1     0     0     0   107  ||
        ||    NNW      62     44    34     7     1     0     0     0     0   148  ||
        ||  TOTAL     949    663   329    95    21     4     1     0     0  2062  ||
        ||                                                                   ||
        ||  CALM =      1 hours                                              ||
        ||  MISSING DATA =     1 hours                                       ||
        ||-------------------------------------------------------------------||
        ||   Joint Wind Direction and Speed Frequency Distribution (percent)  ||
        ||                                                                   ||
        ||                          Wind Speed (km/h)                        ||
        ||    Dir     1-5   6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
        ||    N       5.3    9.7   5.5   2.0    .2    .0    .0    .0    .0  22.7  ||
        ||    NNE     2.0    1.0    .1    .0    .0    .0    .0    .0    .0   3.1  ||
        ||    NE      1.6     .1    .0    .0    .0    .0    .0    .0    .0   1.7  ||
        ||    ENE     3.0     .7    .5    .0    .0    .0    .0    .0    .0   4.2  ||
        ||    E       2.6     .5    .0    .0    .0    .0    .0    .0    .0   3.2  ||
        ||    ESE     2.8    1.6    .7    .0    .0    .0    .0    .0    .0   5.1  ||
        ||    SE      5.5    7.9   3.3    .0    .0    .0    .0    .0    .0  16.8  ||
        ||    SSE     5.1    2.0    .7    .0    .0    .0    .0    .0    .0   7.9  ||
        ||    S       2.1     .6    .0    .0    .0    .0    .0    .0    .0   2.7  ||
        ||    SSW     1.7     .2    .0    .0    .0    .0    .0    .0    .0   1.9  ||
        ||    SW      2.4    1.7    .7    .4    .0    .0    .0    .0    .0   5.2  ||
        ||    WSW     1.4    1.8    .8    .3    .0    .0    .0    .0    .0   4.4  ||
        ||    W       2.4     .7    .4    .5    .1    .0    .0    .0    .0   4.2  ||
        ||    WNW     2.2     .4    .8    .5    .3    .1    .0    .0    .0   4.3  ||
        ||    NW      2.9     .8    .6    .5    .3    .0    .0    .0    .0   5.2  ||
        ||    NNW     3.0    2.1   1.6    .3    .0    .0    .0    .0    .0   7.2  ||
        ||  TOTAL    46.0   32.1  15.9   4.6   1.0    .2    .0    .0    .0  99.9  ||
        ||                                                                   ||
        ||  CALM =    .05%                                                   ||
        ||  MISSING DATA =    .05%                                           ||
        ||-------------------------------------------------------------------||
                              O3  Summary Statistics for 1995
                              Springbank Airport Monitoring Station
                              Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =    .082 PPM                                     ||
|| Ambient 24-hour average guideline  =    .025 PPM                                    ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .001   .001   .004   .012   .021   .030   .035   .038   .041   .044 ||
|| Spring   .001   .004   .009   .013   .021   .030   .039   .045   .047   .050   .069 ||
|| Summer   .001   .002   .005   .008   .015   .025   .034   .042   .046   .053   .061 ||
|| Autumn   .000   .001   .002   .005   .011   .021   .030   .036   .038   .048   .063 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||           Mean       Mean     Std Dev                     1 hour       24 hour       ||
|| Winter     .021       .015        .011      .044 2148     0(0.00%)     30(33.71%)    ||
|| Spring     .030       .026        .012      .068 2093     0(0.00%)     67(77.91%)    ||
|| Summer     .025       .021        .013      .060 2200     0(0.00%)     37(40.22%)    ||
|| Autumn     .021       .015        .012      .063 2173     0(0.00%)     21(23.08%)    ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .001   .001   .001   .006   .014   .023   .031   .033   .036   .039 ||
|| Feb      .001   .002   .006   .010   .018   .028   .035   .039   .040   .042   .044 ||
|| Mar      .001   .004   .008   .012   .018   .030   .039   .044   .046   .048   .053 ||
|| Apr      .004   .008   .013   .017   .023   .031   .039   .045   .047   .050   .053 ||
|| May      .001   .003   .008   .012   .019   .029   .040   .046   .048   .057   .069 ||
|| Jun      .001   .002   .006   .010   .018   .030   .040   .047   .050   .056   .061 ||
|| Jul      .001   .002   .005   .007   .014   .023   .033   .039   .042   .052   .055 ||
|| Aug      .001   .002   .005   .007   .014   .023   .031   .037   .041   .048   .053 ||
|| Sep      .001   .001   .003   .005   .011   .020   .030   .039   .045   .054   .063 ||
|| Oct      .000   .001   .004   .008   .015   .025   .031   .035   .037   .039   .040 ||
|| Nov      .000   .000   .001   .002   .008   .017   .026   .034   .036   .039   .040 ||
|| Dec      .001   .001   .003   .007   .015   .022   .029   .033   .035   .039   .042 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||           Mean       Mean     Std Dev                     1 hour       24 hour       ||
|| Jan        .015       .009        .010      .039   738     0(0.00%)      2(6.67%)     ||
|| Feb        .026       .023        .011      .043   669     0(0.00%)     15(53.57%)    ||
|| Mar        .029       .025        .012      .052   711     0(0.00%)     20(68.97%)    ||
|| Apr        .031       .029        .010      .049   717     0(0.00%)     25(83.33%)    ||
|| May        .029       .025        .013      .068   665     0(0.00%)     22(81.48%)    ||
|| Jun        .029       .025        .014      .060   717     0(0.00%)     23(76.67%)    ||
|| Jul        .023       .019        .012      .054   741     0(0.00%)     10(32.26%)    ||
|| Aug        .023       .019        .011      .052   742     0(0.00%)      4(12.90%)    ||
|| Sep        .021       .017        .013      .062   717     0(0.00%)      5(16.67%)    ||
|| Oct        .023       .019        .010      .040   740     0(0.00%)      9(29.03%)    ||
|| Nov        .018       .011        .011      .040   716     0(0.00%)      7(23.33%)    ||
|| Dec        .022       .018        .010      .041   741     0(0.00%)     13(41.94%)    ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .001   .004   .007   .014   .024   .033   .040   .044   .050   .069 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||           Mean       Mean     Std Dev                     1 hour       24 hour       ||
|| 1995       .024       .019        .012      .069 8614     0(0.00%)    155(43.30%)    ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         Wind Summary for 1995
                  Springbank Airport Monitoring Station
   ** calculation is for exceedances of the 24-hour guideline  for O3  **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                       ||
||                         Wind Speed (km/h)                             ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||    N       33    43    52    28     7     1     2     1     1   168   ||
||    NNE     21    29    26    26    13     4     1     0     0   120   ||
||    NE      20    30    24    10     5     2     1     0     0    92   ||
||    ENE     30    35    35    10     3     0     0     0     0   113   ||
||    E       34    39    48    29     5     0     0     0     0   155   ||
||    ESE     25    45    30     8     8     2     0     0     0   118   ||
||    SE      38    75    92    84    30    15     6     0     0   340   ||
||    SSE     41    58    47    49    26    15     1     0     0   237   ||
||    S       53    31    11    10     3     1     0     0     0   109   ||
||    SSW     32    21     7     5     1     1     0     0     0    67   ||
||    SW      45    26     8     4     3     0     0     1     0    87   ||
||    WSW     40    35    39    24     7    11     8     5     1   170   ||
||    W       59    51    77    93    65    49    42    22    16   474   ||
||    WNW     74   116    86    32    27    17     8     3     0   363   ||
||    NW      98   255   286   148    46    15     4     1     0   853   ||
||    NNW     41    51    54    39    32    16     3     1     4   241   ||
||  TOTAL    684   940   922   599   281   149    76    34    22  3707   ||
||                                                                       ||
||  CALM =       13 hours                                                ||
||  MISSING DATA =      0 hours                                          ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                       ||
||                         Wind Speed (km/h)                             ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL   ||
||    N       .9   1.2   1.4    .8    .2    .0    .1    .0    .0   4.5   ||
||    NNE     .6    .8    .7    .7    .3    .1    .0    .0    .0   3.2   ||
||    NE      .5    .8    .6    .3    .1    .1    .0    .0    .0   2.5   ||
||    ENE     .8    .9    .9    .3    .1    .0    .0    .0    .0   3.0   ||
||    E       .9   1.0   1.3    .8    .1    .0    .0    .0    .0   4.2   ||
||    ESE     .7   1.2    .8    .2    .2    .1    .0    .0    .0   3.2   ||
||    SE     1.0   2.0   2.5   2.3    .8    .4    .2    .0    .0   9.1   ||
||    SSE    1.1   1.6   1.3   1.3    .7    .4    .0    .0    .0   6.4   ||
||    S      1.4    .8    .3    .3    .1    .0    .0    .0    .0   2.9   ||
||    SSW     .9    .6    .2    .1    .0    .0    .0    .0    .0   1.8   ||
||    SW     1.2    .7    .2    .1    .1    .0    .0    .0    .0   2.3   ||
||    WSW    1.1    .9   1.0    .6    .2    .3    .2    .1    .0   4.6   ||
||    W      1.6   1.4   2.1   2.5   1.7   1.3   1.1    .6    .4  12.7   ||
||    WNW    2.0   3.1   2.3    .9    .7    .5    .2    .1    .0   9.8   ||
||    NW     2.6   6.9   7.7   4.0   1.2    .4    .1    .0    .0  22.9   ||
||    NNW    1.1   1.4   1.5   1.0    .9    .4    .1    .0    .1   6.5   ||
||  TOTAL   18.4  25.3  24.8  16.1   7.6   4.0   2.0    .9    .6  99.7   ||
||                                                                       ||
||  CALM =     .35%                                                      ||
||  MISSING DATA =    .00%                                               ||
||-----------------------------------------------------------------------||
                         O3  Summary Statistics for 1995
                         Royal Park Monitoring Station (Vegreville)
                         Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .082 PPM                                     ||
|| Ambient 24-hour average guideline  =   .025 PPM                                    ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .001   .001    .006    .012    .020    .029    .035    .039    .041    .045    .050 ||
|| Spring   .001   .010    .018    .022    .029    .037    .044    .050    .054    .059    .076 ||
|| Summer   .000   .005    .009    .012    .018    .026    .037    .047    .054    .065    .069 ||
|| Autumn   .000   .003    .009    .012    .017    .023    .030    .036    .041    .052    .060 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| Winter    .027       .023        .010      .049 2157     0(0.00%)     53(58.89%)    ||
|| Spring    .036       .034        .011      .075 2203     0(0.00%)     90(97.83%)    ||
|| Summer    .028       .024        .014      .069 2096     0(0.00%)     49(56.98%)    ||
|| Autumn    .024       .021        .010      .060 1865     0(0.00%)     30(38.96%)    ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .001   .001    .001    .005    .017    .026    .032    .037    .039    .042    .045 ||
|| Feb      .001   .006    .015    .020    .029    .035    .038    .041    .043    .047    .050 ||
|| Mar      .001   .006    .018    .023    .030    .037    .043    .049    .052    .058    .062 ||
|| Apr      .009   .014    .021    .025    .031    .037    .043    .049    .052    .055    .057 ||
|| May      .007   .009    .016    .019    .026    .035    .046    .054    .057    .066    .076 ||
|| Jun      .000   .006    .012    .016    .022    .035    .047    .058    .063    .067    .069 ||
|| Jul      .000   .005    .010    .013    .020    .027    .035    .042    .045    .054    .061 ||
|| Aug      .002   .004    .008    .010    .014    .020    .028    .034    .037    .042    .051 ||
|| Sep      .000   .003    .008    .012    .018    .026    .035    .045    .049    .059    .060 ||
|| Oct      .000   .001    .008    .011    .014    .020    .026    .033    .035    .041    .044 ||
|| Nov      .004   .007    .011    .014    .020    .026    .030    .034    .037    .041    .043 ||
|| Dec      .004   .004    .009    .013    .019    .027    .033    .036    .037    .043    .045 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| Jan       .024       .018        .011      .044  742     0(0.00%)     15(48.39%)    ||
|| Feb       .033       .031        .008      .049  671     0(0.00%)     24(85.71%)    ||
|| Mar       .036       .034        .010      .061  743     0(0.00%)     29(93.55%)    ||
|| Apr       .037       .036        .009      .048  718     0(0.00%)     30(100.00%)   ||
|| May       .036       .033        .013      .069  742     0(0.00%)     31(100.00%)   ||
|| Jun       .036       .030        .016      .069  700     0(0.00%)     25(89.29%)    ||
|| Jul       .027       .024        .011      .061  742     0(0.00%)     20(64.52%)    ||
|| Aug       .021       .019        .009      .049  654     0(0.00%)      4(14.81%)    ||
|| Sep       .027       .023        .012      .060  541     0(0.00%)     15(68.18%)    ||
|| Oct       .021       .018        .009      .044  738     0(0.00%)      2(6.45%)     ||
|| Nov       .025       .023        .007      .039  586     0(0.00%)     13(54.17%)    ||
|| Dec       .025       .023        .009      .041  744     0(0.00%)     14(45.16%)    ||
||-------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .002    .010    .013    .020    .029    .037    .045    .050    .060    .076 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances     ||
||          Mean       Mean     Std Dev                      1 hour      24 hour       ||
|| 1995      .029       .025        .012      .076 8321     0(0.00%)    222(64.35%)    ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          Wind Summary for 1995
                  Royal Park Monitoring Station (Vegreville)
   ** calculation is for exceedances of the 24-hour guideline  for O3  **
||-----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours)  ||
||                                                                        ||
||                           Wind Speed (km/h)                            ||
||    Dir    1-5   6-10  11-15  16-20  21-25  26-30  31-35  36-40    >40 TOTAL  ||
||    N       43    52    54    38    25     5     1     0     3   221  ||
||    NNE     12    31    45    20     6     5     2     2     0   123  ||
||    NE      20    71    86    52    13     4     3     5     0   254  ||
||    ENE     24    67    79    26    24    15     6     6     0   247  ||
||    E       52   110   109    41    23    21     2     0     0   358  ||
||    ESE     29    61   101   120    82    56    13    10     0   472  ||
||    SE      33    97   130    78    27    22    30     0     0   417  ||
||    SSE     38   114    79    56    15     8     2     0     0   312  ||
||    S       53   115    73    50     9     3     0     0     0   303  ||
||    SSW     37   104    69    54    20     5     1     0     0   290  ||
||    SW      28    84    65    23     7     9     0     0     0   216  ||
||    WSW     21    89    77    40    10     6     0     0     0   243  ||
||    W       63   164   113    67    16     5     3     1     4   436  ||
||    WNW     28    81   107    86    79    38    16     5    10   450  ||
||    NW      21    98   167   118    90    35    13     9     8   559  ||
||    NNW     25    52    69    52    38    25    15     1     0   277  ||
||  TOTAL    527  1390  1423   921   484   262   107    39    25  5178  ||
||                                                                        ||
||  CALM =     54 hours                                                   ||
||  MISSING DATA =     96 hours                                           ||
||-----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)     ||
||                                                                        ||
||                           Wind Speed (km/h)                            ||
||    Dir    1-5   6-10  11-15  16-20  21-25  26-30  31-35  36-40    >40 TOTAL  ||
||    N       .8   1.0   1.0    .7    .5    .1    .0    .0    .1   4.1  ||
||    NNE     .2    .6    .8    .4    .1    .1    .0    .0    .0   2.3  ||
||    NE      .4   1.3   1.6   1.0    .2    .1    .1    .1    .0   4.8  ||
||    ENE     .5   1.3   1.5    .5    .5    .3    .1    .1    .0   4.6  ||
||    E      1.0   2.1   2.0    .8    .4    .4    .0    .0    .0   6.7  ||
||    ESE     .5   1.1   1.9   2.3   1.5   1.1    .2    .2    .0   8.9  ||
||    SE      .6   1.8   2.4   1.5    .5    .4    .6    .0    .0   7.8  ||
||    SSE     .7   2.1   1.5   1.1    .3    .2    .0    .0    .0   5.9  ||
||    S      1.0   2.2   1.4    .9    .2    .1    .0    .0    .0   5.7  ||
||    SSW     .7   2.0   1.3   1.0    .4    .1    .0    .0    .0   5.4  ||
||    SW      .5   1.6   1.2    .4    .1    .2    .0    .0    .0   4.1  ||
||    WSW     .4   1.7   1.4    .8    .2    .1    .0    .0    .0   4.6  ||
||    W      1.2   3.1   2.1   1.3    .3    .1    .1    .0    .1   8.2  ||
||    WNW     .5   1.5   2.0   1.6   1.5    .7    .3    .1    .2   8.4  ||
||    NW      .4   1.8   3.1   2.2   1.7    .7    .2    .2    .2  10.5  ||
||    NNW     .5   1.0   1.3   1.0    .7    .5    .3    .0    .0   5.2  ||
||  TOTAL    9.9  26.1  26.7  17.3   9.1   4.9   2.0    .7    .5  97.2  ||
||                                                                        ||
||  CALM =  1.01%                                                         ||
||  MISSING DATA =  1.80%                                                 ||
||-----------------------------------------------------------------------||
```

Annual Average Concentration
Year: 1995
Pollutant: O3 [ppm]

Year	EDMU	ERMU	EIMU	CDMU	CRMU	CIMU	Fort Sask.	Fort McMurray	Royal Park	Springbank Airport
1976	0.024	0.027	0.022	0.012	0.027	0.019	*	*	*	*
1977	0.014	0.015	0.015	0.011	0.021	0.013	*	*	*	*
1978	0.009	0.017	0.017	0.014	0.022	0.012	*	*	*	*
1979	0.012	0.019	0.023	0.013	0.024	0.018	*	*	*	*
1980	0.012	0.015	0.020	0.012	0.020	0.014	*	*	*	*
1981	0.012	0.018	0.021	0.010	0.020	0.012	b	*	*	*
1982	0.014	0.021	0.024	0.012	0.022	0.016	0.027	*	*	*
1983	0.012	0.018	0.022	0.012	0.021	0.015	0.022	*	*	*
1984	0.015	0.017	0.020	0.013	0.023	0.015	0.027	0.021	*	*
1985	0.015	0.015	0.025	0.013	0.023	0.017	0.024	0.020	*	*
1986	0.016	0.018	0.022	0.012	0.022	0.017	0.021	0.020	*	*
1987	0.021	0.019	0.022	0.014	0.023	0.017	0.024	0.022	*	*
1988	0.016	0.018	0.022	0.016	0.023	0.017	0.025	0.022	*	*
1989	0.015	0.016	0.020	0.015	0.024	0.016	0.021	0.023	*	*
1990	0.014	0.018	0.021	0.014	0.023	0.018	0.025	0.025	*	*
1991	0.017	0.020	0.020	0.015	0.025	0.018	0.027	0.022	*	*
1992	0.016	0.017	0.020	0.013	0.021	0.015	0.020	0.021	*	*
1993	0.017	0.017	0.021	0.013	0.021	0.014	0.022	0.022	0.027	*
1994	0.020	0.020	0.023	0.015	0.023	0.017	0.027	0.024	0.027	0.028
1995	0.014	0.016	0.022	0.012	0.021	0.015	0.025	0.019	0.029	0.024

a 50% to 75% of data available
b less than 50% of data available
* no data available

```
                              PM10 Summary Statistics for 1995
                              Edmonton Northwest Monitoring Station
                              Units are ug/m3 (micrograms per cubic meter)
||-----------------------------------------------------------------------------------||
|| No guidelines                                                                     ||
||------------------------------------BY SEASON-------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter    2.     3.     5.     6.     8.    13.    19.    27.    34.    70.   201.||
|| Spring    0.     3.     6.     7.    10.    17.    27.    41.    49.    79.   196.||
|| Summer    0.     3.     5.     7.    11.    16.    25.    38.    50.    83.   130.||
|| Autumn    0.     3.     5.     6.     9.    15.    26.    40.    52.    86.   163.||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| Winter   15.8       12.7       14.5     200.   737            n/a                 ||
|| Spring   21.1       16.3       16.1     196.  1685            n/a                 ||
|| Summer   20.4       15.5       15.7     130.  2205            n/a                 ||
|| Autumn   20.1       15.0       16.8     163.  2150            n/a                 ||
||------------------------------------BY MONTH--------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan       *      *      *      *      *      *      *      *      *      *      *  ||
|| Feb       *      *      *      *      *      *      *      *      *      *      *  ||
|| Mar       6.     6.     8.     8.    13.    22.    39.    54.    72.   119.   141.||
|| Apr       0.     3.     5.     6.     9.    13.    21.    31.    39.    71.   196.||
|| May       0.     3.     6.     8.    13.    20.    30.    43.    49.    69.    98.||
|| Jun       0.     1.     5.     7.    15.    24.    36.    52.    63.   120.   130.||
|| Jul       1.     3.     6.     7.    11.    15.    22.    29.    37.    63.    89.||
|| Aug       3.     4.     5.     6.     9.    14.    19.    28.    35.    61.    86.||
|| Sep       2.     3.     6.     9.    16.    26.    40.    57.    72.   108.   163.||
|| Oct       0.     2.     4.     5.     7.    11.    19.    30.    37.    51.    69.||
|| Nov       2.     3.     5.     6.     8.    12.    19.    27.    35.    56.   121.||
|| Dec       2.     3.     5.     6.     8.    13.    19.    27.    34.    70.   201.||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| Jan       *          *          *         *      *              *                 ||
|| Feb       *          *          *         *      *              *                 ||
|| Mar      28.8       22.7       21.0     135.   224            n/a                 ||
|| Apr      16.9       13.0       15.2     196.   717            n/a                 ||
|| May      22.8       18.4       13.9      98.   744            n/a                 ||
|| Jun      27.9       18.5       20.8     130.   720            n/a                 ||
|| Jul      17.5       14.9       10.8      88.   744            n/a                 ||
|| Aug      15.9       13.4       10.6      84.   741            n/a                 ||
|| Sep      30.9       24.6       21.0     161.   717            n/a                 ||
|| Oct      14.5       11.4       10.7      69.   737            n/a                 ||
|| Nov      14.8       12.0       10.8     119.   696            n/a                 ||
|| Dec      15.8       12.7       14.5     200.   737            n/a                 ||
||-------------------------------------BY YEAR--------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995      0.     3.     5.     6.    10.    16.    25.    39.    49.    81.   201.||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| 1995     20.0       15.2       16.1     201.  6777            n/a                 ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          PM10 Summary Statistics for 1995
                          Calgary Central Monitoring Station
                          Units are ug/m3 (micrograms per cubic meter)
||-----------------------------------------------------------------------------------||
|| No guidelines                                                                     ||
||-------------------------------------BY SEASON-------------------------------------||
|| SEASON   MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter     2.     3.      4.      5.      6.      9.     14.     21.     30.     46.     72.||
|| Spring   *       *       *       *       *       *       *       *       *       *       *  ||
|| Summer     0.     3.      4.      5.      7.     11.     17.     25.     32.     63.    183.||
|| Autumn     0.     3.      4.      5.      7.     11.     18.     26.     34.     52.     89.||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| Winter   11.3        9.2        8.7      70.   742            n/a                 ||
|| Spring    *          *          *        *     *               *                  ||
|| Summer   13.9       11.0       11.8     183.  2124            n/a                 ||
|| Autumn   13.8       11.1       10.1      89.  2136            n/a                 ||
||-------------------------------------BY MONTH--------------------------------------||
|| MONTH    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      *       *       *       *       *       *       *       *       *       *       *  ||
|| Feb      *       *       *       *       *       *       *       *       *       *       *  ||
|| Mar      *       *       *       *       *       *       *       *       *       *       *  ||
|| Apr      *       *       *       *       *       *       *       *       *       *       *  ||
|| May      *       *       *       *       *       *       *       *       *       *       *  ||
|| Jun        2.     3.      5.      6.      8.     12.     17.     23.     27.     39.     52.||
|| Jul        0.     1.      3.      4.      7.     10.     15.     22.     30.     48.    127.||
|| Aug        1.     3.      4.      5.      7.     11.     20.     30.     44.     85.    183.||
|| Sep        2.     3.      5.      7.     10.     15.     20.     28.     35.     46.     59.||
|| Oct        0.     2.      3.      4.      6.      8.     13.     20.     24.     39.     46.||
|| Nov        3.     3.      4.      5.      7.     11.     18.     30.     40.     70.     89.||
|| Dec        2.     3.      4.      5.      6.      9.     14.     21.     30.     46.     72.||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| Jan       *          *          *        *     *               *                  ||
|| Feb       *          *          *        *     *               *                  ||
|| Mar       *          *          *        *     *               *                  ||
|| Apr       *          *          *        *     *               *                  ||
|| May       *          *          *        *     *               *                  ||
|| Jun      13.6       11.8        7.4      51.   720            n/a                 ||
|| Jul      12.2        9.7       10.3     127.   727            n/a                 ||
|| Aug      16.0       11.8       16.0     182.   677            n/a                 ||
|| Sep      16.2       13.9        9.1      57.   686            n/a                 ||
|| Oct      10.4        8.4        7.1      46.   738            n/a                 ||
|| Nov      15.0       11.7       12.5      86.   712            n/a                 ||
|| Dec      11.3        9.2        8.7      70.   742            n/a                 ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995       0.     3.      4.      5.      7.     11.     17.     25.     32.     53.    183.||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                                              ||
|| 1995     13.5       10.7       10.7     183.  5002            n/a                 ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable         * - no data
```

```
||-------------------------------||
|| Annual Average Concentration  ||
|| Year: 1995                    ||
|| Pollutant: PM10 [ug/m3]       ||
||-------------------------------||
||   Year     | Edmonton  Calgary ||
||            | Northwest Central ||
||------------+------------------||
||   1976     |     *        *    ||
||   1977     |     *        *    ||
||   1978     |     *        *    ||
||   1979     |     *        *    ||
||   1980     |     *        *    ||
||   1981     |     *        *    ||
||   1982     |     *        *    ||
||   1983     |     *        *    ||
||   1984     |     *        *    ||
||   1985     |     *        *    ||
||   1986     |     *        *    ||
||   1987     |     *        *    ||
||   1988     |     *        *    ||
||   1989     |     *        *    ||
||   1990     |     *        *    ||
||   1991     |     *        *    ||
||   1992     |     *        *    ||
||   1993     |     b        *    ||
||   1994     |   21.7       *    ||
||   1995     |   20.0     13.5   ||
||-------------------------------||

a  50% to 75% of data available
b  less than 50% of data available
 *  no data available
```

```
                          SO2 Summary Statistics for 1995
                          Edmonton East Monitoring Station
                          Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .170 PPM                                    ||
|| Ambient 24-hour average guideline  =   .060 PPM                                   ||
|| Ambient annual average guideline  =   .010 PPM                                    ||
||--------------------------------------BY SEASON------------------------------------||
|| SEASON   MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter  .000   .000   .000   .000   .001   .003   .004   .006   .008   .011   .021 ||
|| Spring  .000   .000   .000   .000   .000   .001   .002   .005   .007   .015   .057 ||
|| Summer  .000   .000   .000   .000   .000   .001   .002   .004   .007   .017   .041 ||
|| Autumn  .000   .000   .000   .000   .001   .002   .003   .006   .008   .017   .076 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| Winter   .003       .001        .003     .021 2073     0(0.00%)    0(0.00%)       ||
|| Spring   .002       .000        .003     .057 2194     0(0.00%)    0(0.00%)       ||
|| Summer   .002       .000        .003     .041 2197     0(0.00%)    0(0.00%)       ||
|| Autumn   .003       .001        .004     .076 2168     0(0.00%)    0(0.00%)       ||
||--------------------------------------BY MONTH-------------------------------------||
|| MONTH    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan     .000   .000   .000   .001   .002   .003   .005   .007   .009   .013   .021 ||
|| Feb     .000   .000   .000   .000   .001   .002   .003   .004   .005   .008   .014 ||
|| Mar     .000   .000   .000   .000   .001   .002   .003   .005   .009   .018   .057 ||
|| Apr     .000   .000   .000   .000   .000   .001   .002   .003   .004   .012   .026 ||
|| May     .000   .000   .000   .000   .000   .001   .002   .005   .007   .021   .046 ||
|| Jun     .000   .000   .000   .000   .001   .001   .003   .005   .009   .019   .041 ||
|| Jul     .000   .000   .000   .000   .000   .001   .002   .004   .007   .014   .027 ||
|| Aug     .000   .000   .000   .000   .000   .001   .002   .004   .007   .016   .026 ||
|| Sep     .000   .000   .000   .000   .001   .002   .004   .007   .012   .032   .076 ||
|| Oct     .000   .000   .000   .000   .000   .001   .003   .004   .008   .015   .025 ||
|| Nov     .000   .000   .000   .000   .001   .002   .004   .006   .007   .011   .024 ||
|| Dec     .000   .000   .000   .000   .001   .003   .005   .007   .008   .012   .020 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| Jan      .004       .002        .003     .021  667     0(0.00%)    0(0.00%)       ||
|| Feb      .002       .001        .002     .014  665     0(0.00%)    0(0.00%)       ||
|| Mar      .003       .001        .004     .057  740     0(0.00%)    0(0.00%)       ||
|| Apr      .001       .000        .002     .026  716     0(0.00%)    0(0.00%)       ||
|| May      .002       .000        .004     .046  738     0(0.00%)    0(0.00%)       ||
|| Jun      .002       .001        .004     .041  716     0(0.00%)    0(0.00%)       ||
|| Jul      .002       .000        .003     .027  740     0(0.00%)    0(0.00%)       ||
|| Aug      .002       .000        .003     .026  741     0(0.00%)    0(0.00%)       ||
|| Sep      .003       .001        .006     .076  717     0(0.00%)    0(0.00%)       ||
|| Oct      .002       .000        .003     .025  739     0(0.00%)    0(0.00%)       ||
|| Nov      .003       .001        .002     .024  712     0(0.00%)    0(0.00%)       ||
|| Dec      .003       .001        .003     .020  741     0(0.00%)    0(0.00%)       ||
||--------------------------------------BY YEAR--------------------------------------||
|| YEAR     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995    .000   .000   .000   .000   .001   .002   .003   .005   .008   .015   .076 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean     Std Dev                   1 hour      24 hour        ||
|| 1995     .002       .001        .003     .076 8632     0(0.00%)    0(0.00%)       ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

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                              SO2 Summary Statistics for 1995
                              Calgary East Monitoring Station
                              Units are PPM (parts per million)
||-----------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .170 PPM                                          ||
|| Ambient 24-hour average guideline  =   .060 PPM                                         ||
|| Ambient annual average guideline  =   .010 PPM                                          ||
||--------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000   .001   .002   .003   .005   .007   .010   .011   .015   .072 ||
|| Spring   .000   .000   .001   .001   .002   .003   .004   .006   .007   .011   .032 ||
|| Summer   .000   .000   .001   .001   .002   .002   .004   .005   .006   .010   .015 ||
|| Autumn   .000   .000   .001   .001   .002   .004   .006   .008   .009   .013   .022 ||
||                                                                                         ||
|| SEASON Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances          ||
||           Mean       Mean     Std Dev                     1 hour      24 hour            ||
|| Winter     .006       .004        .004      .072 1870     0(0.00%)      0(0.00%)          ||
|| Spring     .003       .002        .002      .032 2172     0(0.00%)      0(0.00%)          ||
|| Summer     .003       .002        .002      .015 2187     0(0.00%)      0(0.00%)          ||
|| Autumn     .004       .003        .003      .022 2120     0(0.00%)      0(0.00%)          ||
||--------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .001   .002   .002   .004   .006   .008   .010   .012   .016   .032 ||
|| Feb      .000   .000   .000   .001   .002   .004   .006   .009   .010   .014   .019 ||
|| Mar      .000   .000   .001   .001   .002   .003   .005   .007   .008   .013   .032 ||
|| Apr      .000   .001   .001   .001   .002   .002   .003   .005   .006   .010   .014 ||
|| May      .001   .001   .001   .001   .002   .003   .004   .005   .006   .010   .015 ||
|| Jun      .000   .001   .001   .001   .002   .003   .003   .005   .006   .010   .015 ||
|| Jul      .000   .000   .000   .001   .001   .002   .003   .005   .006   .009   .012 ||
|| Aug      .000   .000   .001   .001   .002   .003   .004   .006   .007   .010   .013 ||
|| Sep      .000   .000   .001   .002   .003   .004   .006   .008   .009   .013   .017 ||
|| Oct      .000   .000   .001   .001   .002   .003   .005   .007   .008   .012   .015 ||
|| Nov      .000   .000   .001   .001   .003   .005   .007   .009   .011   .015   .022 ||
|| Dec      .001   .001   .002   .003   .004   .005   .007   .009   .011   .017   .072 ||
||                                                                                         ||
|| MONTH  Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances          ||
||           Mean       Mean     Std Dev                     1 hour      24 hour            ||
|| Jan        .006       .005        .003      .032  741     0(0.00%)      0(0.00%)          ||
|| Feb        .004       .002        .003      .019  393     0(0.00%)      0(0.00%)          ||
|| Mar        .004       .002        .003      .032  715     0(0.00%)      0(0.00%)          ||
|| Apr        .003       .002        .002      .014  717     0(0.00%)      0(0.00%)          ||
|| May        .003       .003        .002      .014  740     0(0.00%)      0(0.00%)          ||
|| Jun        .003       .002        .002      .015  713     0(0.00%)      0(0.00%)          ||
|| Jul        .003       .001        .002      .012  735     0(0.00%)      0(0.00%)          ||
|| Aug        .003       .002        .002      .013  739     0(0.00%)      0(0.00%)          ||
|| Sep        .004       .003        .003      .017  713     0(0.00%)      0(0.00%)          ||
|| Oct        .004       .003        .002      .015  741     0(0.00%)      0(0.00%)          ||
|| Nov        .005       .003        .003      .022  666     0(0.00%)      0(0.00%)          ||
|| Dec        .006       .005        .004      .071  736     0(0.00%)      0(0.00%)          ||
||---------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000   .001   .001   .002   .003   .005   .008   .009   .013   .072 ||
||                                                                                         ||
|| YEAR   Arithmetic Geometric Arithmetic   Range   N      Number of Exceedances          ||
||           Mean       Mean     Std Dev                     1 hour      24 hour            ||
|| 1995       .004       .002        .003      .072 8349     0(0.00%)      0(0.00%)          ||
||-----------------------------------------------------------------------------------------||
   n/a - not applicable         * - no data
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                                    SO2 Summary Statistics for 1995
                                    Fort Saskatchewan Monitoring Station
                                    Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .170 PPM                                 ||
|| Ambient 24-hour average guideline  =   .060 PPM                                ||
|| Ambient annual average guideline  =   .010 PPM                                 ||
||--------------------------------------BY SEASON--------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   .000   .000   .001   .001   .002   .003   .004   .006   .007   .010   .028 ||
|| Spring   .000   .000   .000   .000   .001   .001   .002   .003   .004   .008   .036 ||
|| Summer   .000   .000   .000   .000   .001   .001   .002   .003   .004   .010   .021 ||
|| Autumn   .000   .000   .000   .001   .001   .002   .003   .004   .006   .011   .046 ||
||                                                                                ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||          Mean       Mean      Std Dev                      1 hour      24 hour   ||
|| Winter    .003       .002        .002      .028 2147     0(0.00%)     0(0.00%)   ||
|| Spring    .001       .000        .002      .036 2193     0(0.00%)     0(0.00%)   ||
|| Summer    .002       .001        .002      .021 2125     0(0.00%)     0(0.00%)   ||
|| Autumn    .002       .001        .002      .046 2172     0(0.00%)     0(0.00%)   ||
||--------------------------------------BY MONTH---------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      .000   .000   .001   .001   .002   .003   .004   .006   .007   .009   .010 ||
|| Feb      .000   .000   .001   .001   .001   .002   .003   .004   .006   .011   .028 ||
|| Mar      .000   .000   .000   .001   .001   .001   .003   .004   .005   .012   .036 ||
|| Apr      .000   .000   .000   .000   .001   .001   .001   .002   .003   .006   .012 ||
|| May      .000   .000   .000   .000   .000   .001   .001   .002   .003   .006   .023 ||
|| Jun      .000   .000   .000   .000   .001   .001   .002   .003   .005   .011   .019 ||
|| Jul      .000   .000   .000   .000   .001   .001   .002   .003   .004   .008   .019 ||
|| Aug      .000   .000   .000   .000   .001   .001   .002   .003   .004   .011   .021 ||
|| Sep      .000   .000   .000   .001   .001   .001   .002   .004   .006   .015   .026 ||
|| Oct      .000   .000   .000   .001   .001   .001   .002   .004   .005   .010   .026 ||
|| Nov      .000   .000   .001   .001   .001   .002   .003   .005   .006   .010   .046 ||
|| Dec      .001   .001   .001   .001   .002   .004   .005   .007   .008   .011   .016 ||
||                                                                                ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||          Mean       Mean      Std Dev                      1 hour      24 hour   ||
|| Jan       .003       .002        .002      .010  740     0(0.00%)     0(0.00%)   ||
|| Feb       .002       .001        .002      .028  663     0(0.00%)     0(0.00%)   ||
|| Mar       .002       .001        .002      .036  740     0(0.00%)     0(0.00%)   ||
|| Apr       .001       .000        .001      .012  714     0(0.00%)     0(0.00%)   ||
|| May       .001       .000        .001      .023  739     0(0.00%)     0(0.00%)   ||
|| Jun       .002       .001        .002      .019  650     0(0.00%)     0(0.00%)   ||
|| Jul       .002       .001        .002      .019  739     0(0.00%)     0(0.00%)   ||
|| Aug       .002       .001        .002      .021  736     0(0.00%)     0(0.00%)   ||
|| Sep       .002       .001        .003      .026  715     0(0.00%)     0(0.00%)   ||
|| Oct       .002       .001        .002      .026  738     0(0.00%)     0(0.00%)   ||
|| Nov       .002       .001        .003      .046  719     0(0.00%)     0(0.00%)   ||
|| Dec       .004       .003        .002      .015  744     0(0.00%)     0(0.00%)   ||
||--------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     .000   .000   .000   .000   .001   .001   .003   .005   .006   .010   .046 ||
||                                                                                ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N      Number of Exceedances   ||
||          Mean       Mean.     Std Dev                      1 hour      24 hour   ||
|| 1995      .002       .001        .002      .046 8637     0(0.00%)     0(0.00%)   ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         SO2 Summary Statistics for 1995
                         Fort McMurray Monitoring Station
                         Units are PPM (parts per million)
||-------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .170 PPM                                ||
|| Ambient 24-hour average guideline  =   .060 PPM                               ||
|| Ambient annual average guideline  =   .010 PPM                                ||
||-------------------------------------BY SEASON---------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .000   .000   .000   .001   .001   .002   .006   .014   .046   .135 ||
|| Spring   .000   .000   .000   .000   .000   .001   .002   .008   .015   .046   .172 ||
|| Summer   .000   .000   .000   .000   .000   .000   .001   .004   .010   .022   .099 ||
|| Autumn   .000   .000   .000   .000   .000   .001   .001   .006   .012   .037   .148 ||
||                                                                               ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                    1 hour      24 hour    ||
|| Winter    .003      .000         .009    .135 2152     0(0.00%)    0(0.00%)   ||
|| Spring    .003      .000         .009    .172 2175     1(0.05%)    0(0.00%)   ||
|| Summer    .002      .000         .005    .099 2201     0(0.00%)    0(0.00%)   ||
|| Autumn    .003      .000         .009    .148 2177     0(0.00%)    0(0.00%)   ||
||-------------------------------------BY MONTH----------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .000   .000   .000   .001   .001   .002   .004   .006   .031   .124 ||
|| Feb      .000   .000   .000   .000   .001   .001   .004   .018   .030   .060   .135 ||
|| Mar      .000   .000   .000   .000   .001   .001   .004   .015   .028   .063   .172 ||
|| Apr      .000   .000   .000   .000   .000   .001   .002   .007   .013   .048   .087 ||
|| May      .000   .000   .000   .000   .000   .000   .001   .004   .007   .015   .047 ||
|| Jun      .000   .000   .000   .000   .000   .000   .001   .002   .008   .021   .026 ||
|| Jul      .000   .000   .000   .000   .000   .000   .001   .006   .012   .034   .099 ||
|| Aug      .000   .000   .000   .000   .000   .000   .001   .003   .009   .020   .037 ||
|| Sep      .000   .000   .000   .000   .000   .001   .001   .002   .006   .024   .067 ||
|| Oct      .000   .000   .000   .000   .000   .001   .001   .008   .018   .070   .148 ||
|| Nov      .000   .000   .000   .000   .000   .001   .002   .008   .013   .023   .049 ||
|| Dec      .000   .000   .000   .000   .000   .001   .001   .003   .005   .018   .054 ||
||                                                                               ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                    1 hour      24 hour    ||
|| Jan       .002      .001         .007    .124  742     0(0.00%)    0(0.00%)   ||
|| Feb       .006      .001         .013    .135  669     0(0.00%)    0(0.00%)   ||
|| Mar       .005      .001         .012    .172  740     1(0.14%)    0(0.00%)   ||
|| Apr       .003      .000         .008    .087  716     0(0.00%)    0(0.00%)   ||
|| May       .001      .000         .003    .047  719     0(0.00%)    0(0.00%)   ||
|| Jun       .001      .000         .003    .026  717     0(0.00%)    0(0.00%)   ||
|| Jul       .002      .000         .007    .099  742     0(0.00%)    0(0.00%)   ||
|| Aug       .001      .000         .004    .037  742     0(0.00%)    0(0.00%)   ||
|| Sep       .002      .000         .005    .067  717     0(0.00%)    0(0.00%)   ||
|| Oct       .004      .000         .014    .148  742     0(0.00%)    0(0.00%)   ||
|| Nov       .003      .000         .005    .049  718     0(0.00%)    0(0.00%)   ||
|| Dec       .002      .000         .003    .054  741     0(0.00%)    0(0.00%)   ||
||--------------------------------------BY YEAR----------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .000   .000   .000   .001   .001   .006   .012   .037   .172 ||
||                                                                               ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances  ||
||           Mean      Mean     Std Dev                    1 hour      24 hour    ||
|| 1995      .003      .000         .008    .172 8705     1(0.01%)    0(0.00%)   ||
||-------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                     Wind Summary for 1995
                 Fort McMurray Monitoring Station
  ** calculation is for exceedances of the 1-hour guideline  for SO2 **
||-------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                   ||
||                        Wind Speed (km/h)                          ||
||    Dir    1-5   6-10  11-15  16-20  21-25  26-30  31-35  36-40    >40  TOTAL  ||
||    N        0      0      1      0      0      0      0      0      0      1  ||
||    NNE      0      0      0      0      0      0      0      0      0      0  ||
||    NE       0      0      0      0      0      0      0      0      0      0  ||
||    ENE      0      0      0      0      0      0      0      0      0      0  ||
||    E        0      0      0      0      0      0      0      0      0      0  ||
||    ESE      0      0      0      0      0      0      0      0      0      0  ||
||    SE       0      0      0      0      0      0      0      0      0      0  ||
||    SSE      0      0      0      0      0      0      0      0      0      0  ||
||    S        0      0      0      0      0      0      0      0      0      0  ||
||    SSW      0      0      0      0      0      0      0      0      0      0  ||
||    SW       0      0      0      0      0      0      0      0      0      0  ||
||    WSW      0      0      0      0      0      0      0      0      0      0  ||
||    W        0      0      0      0      0      0      0      0      0      0  ||
||    WNW      0      0      0      0      0      0      0      0      0      0  ||
||    NW       0      0      0      0      0      0      0      0      0      0  ||
||    NNW      0      0      0      0      0      0      0      0      0      0  ||
||  TOTAL      0      0      1      0      0      0      0      0      0      1  ||
||                                                                   ||
||  CALM =      0 hours                                              ||
||  MISSING DATA =      0 hours                                      ||
||-------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                   ||
||                        Wind Speed (km/h)                          ||
||    Dir    1-5   6-10  11-15  16-20  21-25  26-30  31-35  36-40    >40  TOTAL  ||
||    N       .0     .0  100.0     .0     .0     .0     .0     .0     .0  100.0  ||
||    NNE     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    NE      .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    ENE     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    E       .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    ESE     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    SE      .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    SSE     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    S       .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    SSW     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    SW      .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    WSW     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    W       .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    WNW     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    NW      .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||    NNW     .0     .0     .0     .0     .0     .0     .0     .0     .0     .0  ||
||  TOTAL     .0     .0  100.0     .0     .0     .0     .0     .0     .0  100.0  ||
||                                                                   ||
||  CALM =    .00%                                                   ||
||  MISSING DATA =    .00%                                           ||
||-------------------------------------------------------------------||
                     SO2 Summary Statistics for 1995
                     Fort Mackay Monitoring Station
                     Units are PPM (parts per million)
||------------------------------------------------------------------------------------||
|| Ambient 1-hour average guideline  =   .170 PPM                                      ||
|| Ambient 24-hour average guideline  =   .060 PPM                                     ||
|| Ambient annual average guideline  =   .010 PPM                                      ||
||-------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter   .000   .001   .001   .001   .001   .002   .004   .008   .014   .033   .073 ||
|| Spring   .001   .001   .001   .001   .001   .001   .002   .009   .023   .076   .231 ||
|| Summer   .000   .000   .000   .001   .001   .001   .001   .003   .009   .047   .214 ||
|| Autumn   .000   .001   .001   .001   .001   .001   .001   .003   .007   .028   .102 ||
||                                                                                    ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||          Mean       Mean     Std Dev                    1 hour       24 hour        ||
|| Winter    .004       .002        .006     .073 1698     0(0.00%)     0(0.00%)        ||
|| Spring    .005       .002        .014     .230 2188     1(0.05%)     0(0.00%)        ||
|| Summer    .003       .001        .010     .214 2083     1(0.05%)     0(0.00%)        ||
|| Autumn    .002       .001        .006     .102 2177     0(0.00%)     0(0.00%)        ||
||-------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan      .000   .001   .001   .001   .002   .003   .006   .012   .021   .047   .073 ||
|| Feb      .000   .001   .001   .001   .001   .002   .002   .005   .009   .028   .037 ||
|| Mar      .001   .001   .001   .001   .001   .002   .005   .018   .039   .103   .231 ||
|| Apr      .001   .001   .001   .001   .001   .001   .002   .007   .017   .060   .132 ||
|| May      .001   .001   .001   .001   .001   .001   .001   .005   .012   .036   .080 ||
|| Jun      .000   .000   .000   .000   .001   .001   .002   .007   .016   .081   .214 ||
|| Jul      .000   .000   .000   .000   .001   .001   .001   .002   .007   .047   .142 ||
|| Aug      .001   .001   .001   .001   .001   .001   .001   .002   .005   .020   .047 ||
|| Sep      .000   .001   .001   .001   .001   .001   .001   .004   .010   .027   .088 ||
|| Oct      .001   .001   .001   .001   .001   .001   .001   .003   .007   .032   .057 ||
|| Nov      .001   .001   .001   .001   .001   .001   .001   .002   .005   .025   .102 ||
|| Dec      .001   .001   .001   .001   .001   .001   .002   .004   .005   .007   .009 ||
||                                                                                    ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||          Mean       Mean     Std Dev                    1 hour       24 hour        ||
|| Jan       .006       .004        .008     .073  741     0(0.00%)     0(0.00%)        ||
|| Feb       .003       .002        .004     .037  670     0(0.00%)     0(0.00%)        ||
|| Mar       .008       .003        .020     .230  734     1(0.14%)     0(0.00%)        ||
|| Apr       .004       .002        .011     .131  714     0(0.00%)     0(0.00%)        ||
|| May       .003       .001        .007     .079  740     0(0.00%)     0(0.00%)        ||
|| Jun       .004       .001        .015     .214  605     1(0.17%)     0(0.00%)        ||
|| Jul       .002       .001        .009     .142  737     0(0.00%)     0(0.00%)        ||
|| Aug       .002       .001        .004     .046  741     0(0.00%)     0(0.00%)        ||
|| Sep       .002       .001        .006     .088  717     0(0.00%)     0(0.00%)        ||
|| Oct       .002       .001        .005     .056  742     0(0.00%)     0(0.00%)        ||
|| Nov       .002       .001        .005     .101  718     0(0.00%)     0(0.00%)        ||
|| Dec       .002       .002        .001     .008  287     0(0.00%)     0(0.00%)        ||
||--------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995     .000   .000   .001   .001   .001   .001   .002   .006   .013   .047   .231 ||
||                                                                                    ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances       ||
||          Mean       Mean     Std Dev                    1 hour       24 hour        ||
|| 1995      .003       .001        .010     .231 8146     2(0.02%)     0(0.00%)        ||
||------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                        Wind Summary for 1995
                    Fort MacKay Monitoring Station
   ** calculation is for exceedances of the 1-hour guideline  for SO2 **
||----------------------------------------------------------------------||
|| Joint Wind Direction and Speed Frequency Distribution (no. of hours) ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N        0     0     0     0     0     0     0     0     0     0  ||
||    NNE      0     0     0     0     0     0     0     0     0     0  ||
||    NE       0     0     0     0     0     0     0     0     0     0  ||
||    ENE      0     0     0     0     0     0     0     0     0     0  ||
||    E        1     0     0     0     0     0     0     0     0     1  ||
||    ESE      0     0     0     0     0     0     0     0     0     0  ||
||    SE       0     0     0     0     0     0     0     0     0     0  ||
||    SSE      0     1     0     0     0     0     0     0     0     1  ||
||    S        0     0     0     0     0     0     0     0     0     0  ||
||    SSW      0     0     0     0     0     0     0     0     0     0  ||
||    SW       0     0     0     0     0     0     0     0     0     0  ||
||    WSW      0     0     0     0     0     0     0     0     0     0  ||
||    W        0     0     0     0     0     0     0     0     0     0  ||
||    WNW      0     0     0     0     0     0     0     0     0     0  ||
||    NW       0     0     0     0     0     0     0     0     0     0  ||
||    NNW      0     0     0     0     0     0     0     0     0     0  ||
||  TOTAL      1     1     0     0     0     0     0     0     0     2  ||
||                                                                      ||
||  CALM =      0 hours                                                 ||
||  MISSING DATA =      0 hours                                         ||
||----------------------------------------------------------------------||
||   Joint Wind Direction and Speed Frequency Distribution (percent)    ||
||                                                                      ||
||                         Wind Speed (km/h)                            ||
||    Dir    1-5  6-10 11-15 16-20 21-25 26-30 31-35 36-40   >40 TOTAL  ||
||    N       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    ENE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    E     50.0    .0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||    ESE     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SE      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSE     .0  50.0    .0    .0    .0    .0    .0    .0    .0  50.0  ||
||    S       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    SW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WSW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    W       .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    WNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NW      .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||    NNW     .0    .0    .0    .0    .0    .0    .0    .0    .0    .0  ||
||  TOTAL   50.0  50.0    .0    .0    .0    .0    .0    .0    .0 100.0  ||
||                                                                      ||
||  CALM =    .00%                                                      ||
||  MISSING DATA =    .00%                                              ||
||----------------------------------------------------------------------||
||-------------------------------------------------------------------------||
||                   Annual Average Concentration                          ||
||                   Year: 1995                                            ||
||                   Pollutant: SO2 [ppm]                                  ||
||--------+----------------------------------------------------------------||
|| Year   |   EDMU  ERMU  EIMU  CDMU  CRMU  CIMU   Fort    Fort     Fort   ||
||        |                                        Sask. McMurray Mackay   ||
||--------+----------------------------------------------------------------||
|| 1976   |   0.00  0.00  0.00  0.00  0.00  0.00    *       *        *     ||
|| 1977   |   0.00  0.00  0.00  0.00  0.00  0.00    *       *        *     ||
|| 1978   |   0.00  0.00  0.00  0.00  0.00  0.00    *       *        *     ||
|| 1979   |   0.00  0.00  0.00  0.00  0.00  0.00    *      0.00      *     ||
|| 1980   |   0.00  0.00  0.00  0.00  0.00  0.00    *      0.00      *     ||
|| 1981   |    b     b    0.00   *     *    0.00    b      0.00      *     ||
|| 1982   |    *     *    0.00   *     *    0.00   0.00    0.00      *     ||
|| 1983   |    *     *    0.00   *     *    0.00   0.00    0.00      b     ||
|| 1984   |    *     *    0.00   *     *    0.00   0.00    0.00    0.00    ||
|| 1985   |    *     *    0.00   *     *    0.00   0.00    0.00    0.00    ||
|| 1986   |    *     *    0.00   *     *    0.00   0.00    0.00    0.00    ||
|| 1987   |    *     *   0.002   *     *   0.004  0.002    0.003   0.004   ||
|| 1988   |    *     *   0.003   *     *   0.005  0.002    0.002   0.003   ||
|| 1989   |    *     *   0.003   *     *   0.003 0.002a    0.004   0.003   ||
|| 1990   |    *     *   0.003   *     *   0.003  0.002    0.003   0.003   ||
|| 1991   |    *     *   0.003   *     *   0.003  0.002    0.003   0.003   ||
|| 1992   |    *     *   0.002   *     *   0.003  0.002    0.003   0.003   ||
|| 1993   |    *     *   0.003   *     *   0.003  0.002    0.002   0.003   ||
|| 1994   |    *     *   0.003   *     *   0.004  0.002    0.003   0.004   ||
|| 1995   |    *     *   0.002   *     *   0.004  0.002    0.003   0.003   ||
||--------+----------------------------------------------------------------||
```

```
a  50% to 75% of data available
b  less than 50% of data available
*  no data available
```

```
                          THC Summary Statistics for 1995
                          Edmonton Central Monitoring Station
                          Units are PPM (parts per million)
||-----------------------------------------------------------------------------------||
|| No guidelines                                                                     ||
||------------------------------------BY SEASON-------------------------------------||
|| SEASON   MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter   1.7     1.8     1.9     1.9     2.1     2.3     2.7     3.2     3.4     4.3     5.4 ||
|| Spring   1.6     1.7     1.7     1.8     1.8     1.9     2.0     2.2     2.3     2.8     3.7 ||
|| Summer   1.5     1.6     1.6     1.6     1.7     1.7     1.8     2.0     2.1     2.3     2.9 ||
|| Autumn   1.3     1.6     1.8     1.9     2.0     2.3     2.5     2.7     2.9     3.3     4.5 ||
||                                                                                   ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                                             ||
|| Winter   2.44       2.39        .53      3.7  2149              n/a               ||
|| Spring   1.95       1.94        .21      2.1  2124              n/a               ||
|| Summer   1.79       1.78        .16      1.4  2142              n/a               ||
|| Autumn   2.27       2.24        .36      3.2  2115              n/a               ||
||------------------------------------BY MONTH--------------------------------------||
|| MONTH    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan      1.8     1.8     1.9     2.0     2.1     2.5     2.9     3.4     3.7     4.2     5.0 ||
|| Feb      1.7     1.8     1.8     1.9     1.9     2.1     2.2     2.4     2.6     3.4     4.2 ||
|| Mar      1.7     1.7     1.8     1.8     1.9     2.0     2.2     2.4     2.6     3.1     3.4 ||
|| Apr      1.6     1.6     1.7     1.8     1.8     1.9     2.0     2.1     2.1     2.5     3.0 ||
|| May      1.7     1.7     1.7     1.8     1.8     1.9     1.9     2.0     2.1     2.7     3.7 ||
|| Jun      1.5     1.6     1.7     1.7     1.7     1.8     2.0     2.1     2.2     2.5     2.9 ||
|| Jul      1.6     1.6     1.6     1.6     1.7     1.7     1.8     1.9     2.0     2.2     2.6 ||
|| Aug      1.5     1.6     1.6     1.6     1.7     1.7     1.8     1.9     2.0     2.2     2.5 ||
|| Sep      1.3     1.8     1.8     1.9     1.9     2.0     2.2     2.4     2.6     3.6     4.5 ||
|| Oct      1.9     2.0     2.1     2.2     2.3     2.4     2.6     2.8     2.9     3.4     3.8 ||
|| Nov      1.5     1.5     1.6     1.8     1.9     2.3     2.5     2.7     2.8     3.2     3.4 ||
|| Dec      1.8     1.8     2.0     2.1     2.2     2.5     2.8     3.2     3.4     5.0     5.4 ||
||                                                                                   ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                                             ||
|| Jan      2.60       2.54        .56      3.2   743              n/a               ||
|| Feb      2.13       2.11        .29      2.5   672              n/a               ||
|| Mar      2.06       2.05        .26      1.7   667              n/a               ||
|| Apr      1.90       1.90        .16      1.4   716              n/a               ||
|| May      1.90       1.89        .17      2.0   741              n/a               ||
|| Jun      1.85       1.85        .19      1.4   716              n/a               ||
|| Jul      1.74       1.74        .12      1.0   742              n/a               ||
|| Aug      1.76       1.76        .13      1.0   684              n/a               ||
|| Sep      2.11       2.09        .32      3.2   708              n/a               ||
|| Oct      2.49       2.47        .26      1.9   688              n/a               ||
|| Nov      2.22       2.18        .37      1.9   719              n/a               ||
|| Dec      2.57       2.52        .54      3.6   734              n/a               ||
||-------------------------------------BY YEAR--------------------------------------||
|| YEAR     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995     1.3     1.6     1.7     1.7     1.8     2.0     2.3     2.7     2.9     3.6     5.4 ||
||                                                                                   ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances      ||
||          Mean       Mean      Std Dev                                             ||
|| 1995     2.11       2.07        .43      4.1  8530              n/a               ||
||-----------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                         THC Summary Statistics for 1995
                         Edmonton Northwest Monitoring Station
                         Units are PPM (parts per million)
||------------------------------------------------------------------------------||
|| No guidelines                                                                ||
||--------------------------------------BY SEASON-------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    1.6     1.7     1.8     1.9     2.0     2.3     2.7     3.4     3.7     4.5     9.3 ||
|| Spring    1.5     1.6     1.6     1.7     1.8     1.9     2.1     2.3     2.5     3.1     4.6 ||
|| Summer    1.3     1.5     1.5     1.5     1.6     1.6     1.8     2.0     2.3     2.7     3.9 ||
|| Autumn    1.3     1.5     1.6     1.6     1.7     1.8     2.0     2.3     2.5     3.1    19.9 ||
||                                                                              ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean      Std Dev                                        ||
|| Winter    2.46      2.40       .63       7.7  2158              n/a          ||
|| Spring    1.98      1.96       .30       3.1  2125              n/a          ||
|| Summer    1.72      1.71       .24       2.6  2178              n/a          ||
|| Autumn    1.92      1.90       .50      18.6  2168              n/a          ||
||--------------------------------------BY MONTH--------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       2.0     2.0     2.0     2.1     2.2     2.6     3.3     3.7     4.0     5.4     9.3 ||
|| Feb       1.8     1.8     1.9     1.9     2.0     2.2     2.3     2.7     3.0     3.7     4.4 ||
|| Mar       1.7     1.8     1.8     1.9     1.9     2.1     2.3     2.5     2.8     3.4     4.6 ||
|| Apr       1.6     1.6     1.7     1.7     1.8     1.9     2.1     2.3     2.5     2.9     3.5 ||
|| May       1.5     1.6     1.6     1.6     1.7     1.7     1.9     2.0     2.1     2.4     3.0 ||
|| Jun       1.3     1.3     1.5     1.5     1.6     1.7     1.9     2.3     2.4     3.0     3.2 ||
|| Jul       1.5     1.5     1.5     1.5     1.5     1.6     1.7     1.8     1.9     2.3     3.9 ||
|| Aug       1.5     1.6     1.6     1.6     1.6     1.7     1.8     2.0     2.1     2.4     2.7 ||
|| Sep       1.3     1.6     1.6     1.6     1.7     1.8     2.0     2.3     2.5     3.1     3.8 ||
|| Oct       1.6     1.6     1.6     1.6     1.7     1.8     2.0     2.3     2.5     3.2    19.9 ||
|| Nov       1.5     1.5     1.6     1.7     1.8     1.9     2.0     2.3     2.5     3.1     4.1 ||
|| Dec       1.6     1.6     1.7     1.8     1.9     2.2     2.6     3.0     3.3     4.2     5.4 ||
||                                                                              ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean      Std Dev                                        ||
|| Jan       2.81      2.72       .75       7.3   743              n/a          ||
|| Feb       2.26      2.23       .36       2.6   671              n/a          ||
|| Mar       2.15      2.13       .33       2.9   743              n/a          ||
|| Apr       1.99      1.97       .25       1.9   720              n/a          ||
|| May       1.77      1.77       .17       1.5   662              n/a          ||
|| Jun       1.81      1.78       .33       1.9   692              n/a          ||
|| Jul       1.64      1.63       .18       2.4   744              n/a          ||
|| Aug       1.74      1.73       .17       1.2   742              n/a          ||
|| Sep       1.91      1.89       .31       2.5   704              n/a          ||
|| Oct       1.92      1.88       .73      18.3   744              n/a          ||
|| Nov       1.94      1.92       .30       2.6   720              n/a          ||
|| Dec       2.31      2.25       .56       3.8   744              n/a          ||
||--------------------------------------BY YEAR---------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      1.3     1.5     1.6     1.6     1.7     1.9     2.2     2.6     3.0     3.8    19.9 ||
||                                                                              ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances ||
||           Mean      Mean      Std Dev                                        ||
|| 1995      2.02      1.97       .52      18.6  8629              n/a          ||
||------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                          THC Summary Statistics for 1995
                          Edmonton East Monitoring Station
                          Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||--------------------------------------BY SEASON--------------------------------------||
|| SEASON     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%      MAX ||
|| Winter     1.6     1.7     1.8     1.9     2.0     2.3     2.8     3.9     5.2     8.6     15.4 ||
|| Spring     1.5     1.6     1.7     1.7     1.8     1.9     2.2     2.6     3.1     5.1     11.0 ||
|| Summer     1.4     1.6     1.7     1.7     1.7     1.9     2.0     2.3     2.6     3.6      7.1 ||
|| Autumn     1.3     1.7     1.7     1.7     1.8     1.9     2.2     2.5     2.9     5.7     50.0 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Winter   2.68       2.50       1.29     13.8  2155             n/a                  ||
|| Spring   2.11       2.05        .67      9.5  2153             n/a                  ||
|| Summer   1.97       1.94        .39      5.7  2076             n/a                  ||
|| Autumn   2.13       2.05       1.23     48.7  2159             n/a                  ||
||--------------------------------------BY MONTH---------------------------------------||
|| MONTH      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%      MAX ||
|| Jan        1.8     1.9     2.1     2.1     2.2     2.7     3.4     5.0     6.0    11.1     15.4 ||
|| Feb        1.7     1.7     1.8     1.9     1.9     2.1     2.3     2.7     3.2     6.2     11.5 ||
|| Mar        1.5     1.6     1.8     1.8     1.9     2.1     2.4     2.8     3.3     5.3     11.0 ||
|| Apr        1.6     1.7     1.7     1.7     1.8     1.9     2.1     2.4     2.8     5.2      9.5 ||
|| May        1.5     1.5     1.6     1.7     1.8     1.9     2.1     2.4     2.8     4.7      8.7 ||
|| Jun        1.4     1.5     1.6     1.7     1.8     1.9     2.2     2.6     2.9     3.8      5.6 ||
|| Jul        1.5     1.6     1.7     1.7     1.7     1.9     2.0     2.2     2.4     3.0      3.7 ||
|| Aug        1.6     1.6     1.7     1.7     1.7     1.8     2.0     2.2     2.5     3.6      7.1 ||
|| Sep        1.6     1.7     1.7     1.7     1.8     2.0     2.2     2.8     4.2     6.8     50.0 ||
|| Oct        1.3     1.6     1.7     1.7     1.8     1.9     2.1     2.3     2.4     2.7      6.9 ||
|| Nov        1.6     1.7     1.7     1.8     1.9     2.0     2.2     2.6     2.8     5.2     10.6 ||
|| Dec        1.6     1.6     1.8     1.8     1.9     2.2     2.6     3.5     4.9     7.3     10.3 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| Jan      3.19       2.95       1.59     13.6   740             n/a                  ||
|| Feb      2.29       2.21        .83      9.8   671             n/a                  ||
|| Mar      2.27       2.20        .72      9.5   695             n/a                  ||
|| Apr      2.06       2.00        .67      7.9   717             n/a                  ||
|| May      2.01       1.96        .59      7.2   741             n/a                  ||
|| Jun      2.04       2.00        .46      4.2   681             n/a                  ||
|| Jul      1.92       1.91        .27      2.2   651             n/a                  ||
|| Aug      1.94       1.91        .40      5.5   744             n/a                  ||
|| Sep      2.29       2.13       1.99     48.4   720             n/a                  ||
|| Oct      1.96       1.94        .31      5.6   742             n/a                  ||
|| Nov      2.13       2.08        .67      9.0   697             n/a                  ||
|| Dec      2.52       2.37       1.12      8.7   744             n/a                  ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR       MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%      MAX ||
|| 1995       1.3     1.6     1.7     1.7     1.8     2.0     2.3     2.8     3.5     6.0     50.0 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||          Mean       Mean      Std Dev                                               ||
|| 1995     2.22       2.13       1.01     48.7  8543             n/a                  ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
```

```
                              THC Summary Statistics for 1995
                              Calgary Central Monitoring Station
                              Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| No guidelines                                                                   ||
||------------------------------------BY SEASON------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    1.8    1.9     2.0     2.1     2.2     2.3     2.5     2.9     3.3     4.1     5.2 ||
|| Spring    1.8    1.9     1.9     2.0     2.0     2.1     2.3     2.4     2.5     2.9     3.2 ||
|| Summer    1.8    1.9     1.9     1.9     2.0     2.0     2.1     2.2     2.3     2.5     2.9 ||
|| Autumn    1.8    1.9     2.0     2.0     2.1     2.2     2.4     2.7     2.9     3.4     5.8 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean      Std Dev                                          ||
|| Winter    2.43       2.41        .41       3.4  2100            n/a             ||
|| Spring    2.17       2.16        .19       1.4  2161            n/a             ||
|| Summer    2.05       2.05        .12       1.1  2068            n/a             ||
|| Autumn    2.30       2.29        .30       4.0  2161            n/a             ||
||------------------------------------BY MONTH-------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       1.9    2.0     2.1     2.1     2.3     2.4     2.8     3.1     3.5     4.1     5.2 ||
|| Feb       1.9    2.0     2.1     2.1     2.2     2.3     2.5     2.7     3.0     3.7     4.5 ||
|| Mar       1.9    2.0     2.0     2.1     2.2     2.3     2.4     2.6     2.7     3.1     3.2 ||
|| Apr       1.8    1.9     1.9     1.9     2.0     2.1     2.2     2.2     2.3     2.5     2.8 ||
|| May       1.8    1.9     1.9     2.0     2.0     2.1     2.2     2.2     2.3     2.4     2.8 ||
|| Jun       1.8    1.8     1.9     1.9     1.9     2.0     2.1     2.2     2.3     2.5     2.6 ||
|| Jul       1.9    1.9     1.9     1.9     2.0     2.0     2.1     2.2     2.2     2.4     2.9 ||
|| Aug       1.8    1.9     1.9     1.9     2.0     2.0     2.1     2.2     2.3     2.5     2.8 ||
|| Sep       1.8    1.8     1.9     2.0     2.1     2.2     2.3     2.5     2.6     3.1     3.7 ||
|| Oct       1.9    2.0     2.0     2.0     2.1     2.2     2.3     2.5     2.7     3.0     3.6 ||
|| Nov       1.8    2.0     2.0     2.1     2.2     2.4     2.6     2.9     3.1     3.7     5.8 ||
|| Dec       1.8    1.9     2.0     2.0     2.1     2.2     2.4     2.7     3.2     4.4     4.9 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean      Std Dev                                          ||
|| Jan       2.56       2.53        .44       3.3   697            n/a             ||
|| Feb       2.40       2.38        .32       2.6   663            n/a             ||
|| Mar       2.34       2.33        .21       1.3   699            n/a             ||
|| Apr       2.09       2.09        .13       1.0   719            n/a             ||
|| May       2.08       2.08        .12       1.0   743            n/a             ||
|| Jun       2.04       2.04        .13        .8   659            n/a             ||
|| Jul       2.06       2.05        .11       1.0   740            n/a             ||
|| Aug       2.07       2.06        .13       1.0   669            n/a             ||
|| Sep       2.21       2.20        .24       1.9   717            n/a             ||
|| Oct       2.25       2.24        .21       1.7   744            n/a             ||
|| Nov       2.46       2.43        .38       4.0   700            n/a             ||
|| Dec       2.35       2.31        .44       3.1   740            n/a             ||
||-------------------------------------BY YEAR-------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      1.8    1.9     1.9     2.0     2.0     2.2     2.3     2.6     2.8     3.5     5.8 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean       Mean      Std Dev                                          ||
|| 1995      2.24       2.22        .31       4.0  8490            n/a             ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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THC Summary Statistics for 1995
Calgary Northwest Monitoring Station
Units are PPM (parts per million)

No guidelines

BY SEASON

SEASON	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
Winter	1.8	1.8	1.8	1.9	2.0	2.1	2.3	2.5	2.7	3.6	4.2
Spring	1.7	1.8	1.8	1.8	1.8	1.9	2.0	2.2	2.3	2.5	3.0
Summer	1.7	1.7	1.7	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.7
Autumn	1.6	1.6	1.7	1.8	1.8	1.9	2.1	2.3	2.4	2.8	3.5

SEASON	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
Winter	2.17	2.16	.31	2.4	2148	n/a
Spring	1.95	1.95	.18	1.3	2127	n/a
Summer	1.87	1.87	.12	1.0	1931	n/a
Autumn	1.98	1.96	.23	1.9	2148	n/a

BY MONTH

MONTH	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
Jan	1.8	1.8	1.9	1.9	2.0	2.1	2.4	2.7	3.0	3.7	4.2
Feb	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.3	2.4	2.6	2.9
Mar	1.8	1.8	1.8	1.8	1.9	2.1	2.2	2.4	2.5	2.7	3.0
Apr	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.3	2.6
May	1.7	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.5
Jun	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.3	2.7
Jul	1.7	1.7	1.8	1.8	1.8	1.8	1.9	2.1	2.1	2.2	2.3
Aug	1.7	1.7	1.7	1.7	1.7	1.8	1.9	2.0	2.0	2.1	2.3
Sep	1.6	1.6	1.6	1.7	1.7	1.8	1.9	2.0	2.1	2.3	2.6
Oct	1.7	1.7	1.8	1.8	1.8	1.9	2.0	2.1	2.2	2.5	3.3
Nov	1.8	1.8	1.9	1.9	2.0	2.1	2.3	2.5	2.6	3.1	3.5
Dec	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.7	3.7	4.0

MONTH	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
Jan	2.24	2.22	.37	2.4	738	n/a
Feb	2.02	2.01	.20	1.1	672	n/a
Mar	2.10	2.09	.21	1.2	669	n/a
Apr	1.92	1.91	.11	.8	715	n/a
May	1.86	1.86	.08	.8	743	n/a
Jun	1.89	1.89	.12	.9	720	n/a
Jul	1.88	1.88	.11	.6	740	n/a
Aug	1.83	1.82	.11	.6	471	n/a
Sep	1.84	1.84	.14	1.0	708	n/a
Oct	1.92	1.92	.16	1.6	744	n/a
Nov	2.17	2.16	.25	1.7	696	n/a
Dec	2.24	2.23	.29	2.2	738	n/a

BY YEAR

YEAR	MIN	1%	5%	10%	25%	50%	75%	90%	95%	99%	MAX
1995	1.6	1.7	1.8	1.8	1.8	1.9	2.1	2.3	2.4	2.9	4.2

YEAR	Arithmetic Mean	Geometric Mean	Arithmetic Std Dev	Range	N	Number of Exceedances
1995	2.00	1.98	.25	2.6	8354	n/a

n/a - not applicable   * - no data

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                             THC Summary Statistics for 1995
                             Calgary East Monitoring Station
                             Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                       ||
||--------------------------------------BY SEASON--------------------------------------||
|| SEASON    MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Winter    1.8    1.9    2.0    2.0    2.2    2.4    2.7    3.2    3.5    4.2    5.6 ||
|| Spring    1.8    1.8    1.9    1.9    2.0    2.1    2.2    2.4    2.6    2.9    3.7 ||
|| Summer    1.7    1.8    1.8    1.9    1.9    2.0    2.2    2.3    2.4    2.7    3.0 ||
|| Autumn    1.8    1.8    1.8    1.9    2.0    2.2    2.4    2.7    3.1    3.7    6.5 ||
||                                                                                     ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean      Mean     Std Dev                                                ||
|| Winter    2.50      2.46        .48      3.8  2156              n/a                 ||
|| Spring    2.14      2.13        .24      1.9  2181              n/a                 ||
|| Summer    2.06      2.05        .19      1.3  2186              n/a                 ||
|| Autumn    2.28      2.25        .40      4.7  2156              n/a                 ||
||--------------------------------------BY MONTH---------------------------------------||
|| MONTH     MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| Jan       1.8    1.9    2.1    2.1    2.3    2.5    2.9    3.3    3.6    4.3    5.2 ||
|| Feb       1.8    1.8    1.9    2.0    2.1    2.2    2.4    2.8    3.0    3.7    4.4 ||
|| Mar       1.8    1.8    1.8    1.9    2.0    2.1    2.4    2.6    2.8    3.3    3.7 ||
|| Apr       1.8    1.8    1.9    1.9    2.0    2.0    2.1    2.3    2.4    2.7    2.9 ||
|| May       1.9    1.9    1.9    2.0    2.0    2.1    2.2    2.3    2.5    2.7    2.9 ||
|| Jun       1.8    1.8    1.9    1.9    2.0    2.0    2.2    2.4    2.5    2.7    2.8 ||
|| Jul       1.7    1.8    1.8    1.9    1.9    2.0    2.2    2.3    2.4    2.5    3.0 ||
|| Aug       1.7    1.7    1.8    1.8    1.9    2.0    2.1    2.3    2.4    2.7    2.9 ||
|| Sep       1.8    1.8    1.8    1.8    1.9    2.1    2.3    2.5    2.6    2.9    3.3 ||
|| Oct       1.8    1.8    1.9    1.9    2.0    2.2    2.3    2.7    2.9    3.4    3.8 ||
|| Nov       1.8    1.8    1.9    2.0    2.1    2.3    2.6    3.1    3.5    4.5    6.5 ||
|| Dec       1.8    1.9    2.0    2.1    2.2    2.4    2.7    3.2    3.6    4.3    5.6 ||
||                                                                                     ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean      Mean     Std Dev                                                ||
|| Jan       2.65      2.60        .50      3.4   744              n/a                 ||
|| Feb       2.31      2.28        .37      2.6   672              n/a                 ||
|| Mar       2.21      2.18        .31      1.9   742              n/a                 ||
|| Apr       2.08      2.07        .17      1.1   720              n/a                 ||
|| May       2.13      2.13        .17      1.0   719              n/a                 ||
|| Jun       2.09      2.08        .20      1.0   720              n/a                 ||
|| Jul       2.06      2.05        .17      1.3   722              n/a                 ||
|| Aug       2.02      2.02        .19      1.2   744              n/a                 ||
|| Sep       2.14      2.12        .26      1.5   695              n/a                 ||
|| Oct       2.24      2.22        .32      2.0   743              n/a                 ||
|| Nov       2.45      2.41        .52      4.7   718              n/a                 ||
|| Dec       2.53      2.49        .49      3.8   740              n/a                 ||
||---------------------------------------BY YEAR---------------------------------------||
|| YEAR      MIN     1%     5%    10%    25%    50%    75%    90%    95%    99%    MAX ||
|| 1995      1.7    1.8    1.9    1.9    2.0    2.1    2.4    2.7    3.0    3.7    6.5 ||
||                                                                                     ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances        ||
||           Mean      Mean     Std Dev                                                ||
|| 1995      2.24      2.22        .39      4.8  8679              n/a                 ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                        THC Summary Statistics for 1995
                        Fort Saskatchewan Monitoring Station
                        Units are PPM (parts per million)
||---------------------------------------------------------------------------------||
|| No guidelines                                                                   ||
||-----------------------------------BY SEASON-------------------------------------||
|| SEASON    MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    1.4     1.6     1.7     1.8     1.8     2.1     2.7     3.3     3.6     4.4     6.4 ||
|| Spring    1.3     1.5     1.6     1.6     1.7     1.7     1.8     2.0     2.2     3.0     7.5 ||
|| Summer    1.5     1.5     1.6     1.6     1.7     1.8     1.9     2.0     2.1     2.4     3.0 ||
|| Autumn    1.5     1.7     1.7     1.8     1.8     1.9     2.1     2.3     2.6     3.1     4.5 ||
||                                                                                 ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean      Mean     Std Dev                                            ||
|| Winter    2.35      2.27        .65      5.0  2069             n/a              ||
|| Spring    1.79      1.78        .31      6.2  2080             n/a              ||
|| Summer    1.79      1.78        .17      1.5  2157             n/a              ||
|| Autumn    2.01      1.99        .28      3.0  2131             n/a              ||
||-----------------------------------BY MONTH--------------------------------------||
|| MONTH     MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       1.4     1.7     1.8     1.8     1.9     2.2     2.8     3.2     3.5     4.6     6.4 ||
|| Feb       1.6     1.6     1.7     1.7     1.8     1.8     2.0     2.4     2.8     3.3     3.7 ||
|| Mar       1.3     1.4     1.6     1.7     1.7     1.8     2.0     2.2     2.5     3.4     7.5 ||
|| Apr       1.6     1.6     1.6     1.6     1.7     1.7     1.8     1.9     2.0     2.3     3.0 ||
|| May       1.5     1.5     1.5     1.6     1.6     1.6     1.7     1.9     1.9     2.1     2.9 ||
|| Jun       1.5     1.5     1.5     1.5     1.6     1.7     1.8     1.9     2.0     2.1     2.5 ||
|| Jul       1.6     1.6     1.7     1.7     1.7     1.8     1.9     2.0     2.1     2.4     2.8 ||
|| Aug       1.6     1.7     1.7     1.7     1.7     1.8     1.9     2.0     2.2     2.6     3.0 ||
|| Sep       1.5     1.7     1.7     1.7     1.8     1.9     2.0     2.3     2.5     2.9     3.9 ||
|| Oct       1.7     1.7     1.8     1.8     1.8     1.9     2.0     2.3     2.5     3.1     4.5 ||
|| Nov       1.8     1.8     1.8     1.9     1.9     2.0     2.1     2.4     2.7     3.2     3.6 ||
|| Dec       1.5     1.7     1.9     2.0     2.1     2.4     3.1     3.7     4.0     4.6     5.6 ||
||                                                                                 ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean      Mean     Std Dev                                            ||
|| Jan       2.38      2.31        .63      5.0   711             n/a              ||
|| Feb       1.97      1.94        .34      2.1   626             n/a              ||
|| Mar       1.93      1.90        .44      6.2   743             n/a              ||
|| Apr       1.75      1.75        .14      1.4   637             n/a              ||
|| May       1.68      1.67        .14      1.4   700             n/a              ||
|| Jun       1.71      1.70        .15      1.0   719             n/a              ||
|| Jul       1.83      1.83        .15      1.2   695             n/a              ||
|| Aug       1.84      1.83        .19      1.4   743             n/a              ||
|| Sep       1.96      1.94        .27      2.4   668             n/a              ||
|| Oct       1.98      1.96        .27      2.8   743             n/a              ||
|| Nov       2.09      2.07        .27      1.8   720             n/a              ||
|| Dec       2.64      2.56        .69      4.1   732             n/a              ||
||------------------------------------BY YEAR--------------------------------------||
|| YEAR      MIN     1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      1.3     1.5     1.6     1.6     1.7     1.8     2.0     2.5     2.9     3.8     7.5 ||
||                                                                                 ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances    ||
||           Mean      Mean     Std Dev                                            ||
|| 1995      1.98      1.94        .45      6.2  8437             n/a              ||
||---------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                         THC Summary Statistics for 1995
                         Fort McMurray Monitoring Station
                         Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                        ||
||-------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Winter    1.4     1.7     1.8     1.9     2.0     2.1     2.3     2.4     2.5     2.7     3.2 ||
|| Spring    1.3     1.5     1.7     1.8     1.9     2.0     2.1     2.2     2.3     2.5     2.7 ||
|| Summer    1.4     1.5     1.6     1.6     1.7     1.8     1.9     2.0     2.1     2.2     2.5 ||
|| Autumn    1.4     1.5     1.6     1.7     1.8     2.0     2.0     2.1     2.2     2.4     2.5 ||
||                                                                                      ||
|| SEASON Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean      Std Dev                                                ||
|| Winter    2.13      2.12        .20       1.8  2093              n/a                 ||
|| Spring    1.99      1.98        .17       1.4  2049              n/a                 ||
|| Summer    1.80      1.80        .14       1.1  2119              n/a                 ||
|| Autumn    1.94      1.93        .17       1.1  2026              n/a                 ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| Jan       1.4     1.8     1.9     2.0     2.1     2.2     2.3     2.4     2.5     2.6     2.7 ||
|| Feb       1.6     1.7     1.8     1.8     1.9     2.0     2.1     2.2     2.2     2.4     2.6 ||
|| Mar       1.5     1.6     1.7     1.8     1.9     2.0     2.2     2.4     2.4     2.5     2.7 ||
|| Apr       1.7     1.8     1.9     1.9     2.0     2.0     2.1     2.1     2.2     2.3     2.5 ||
|| May       1.3     1.4     1.7     1.7     1.8     1.9     2.0     2.1     2.1     2.2     2.4 ||
|| Jun       1.4     1.5     1.7     1.7     1.8     1.9     2.0     2.1     2.1     2.3     2.5 ||
|| Jul       1.5     1.5     1.6     1.6     1.7     1.7     1.8     1.9     1.9     2.1     2.3 ||
|| Aug       1.5     1.5     1.6     1.6     1.7     1.8     1.8     1.9     2.0     2.1     2.2 ||
|| Sep       1.4     1.4     1.5     1.6     1.7     1.8     1.9     2.1     2.2     2.4     2.5 ||
|| Oct       1.6     1.6     1.7     1.8     1.9     1.9     2.0     2.1     2.2     2.3     2.5 ||
|| Nov       1.7     1.8     1.9     1.9     2.0     2.0     2.1     2.2     2.2     2.3     2.5 ||
|| Dec       1.7     1.7     1.9     2.0     2.1     2.2     2.3     2.4     2.6     2.8     3.2 ||
||                                                                                      ||
|| MONTH  Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean      Std Dev                                                ||
|| Jan       2.18      2.17        .19       1.3   741              n/a                 ||
|| Feb       2.00      2.00        .15       1.0   672              n/a                 ||
|| Mar       2.03      2.02        .22       1.2   608              n/a                 ||
|| Apr       2.03      2.03        .11        .8   719              n/a                 ||
|| May       1.92      1.91        .16       1.1   722              n/a                 ||
|| Jun       1.89      1.89        .14       1.1   720              n/a                 ||
|| Jul       1.75      1.75        .11        .8   656              n/a                 ||
|| Aug       1.77      1.76        .12        .7   743              n/a                 ||
|| Sep       1.83      1.82        .19       1.1   665              n/a                 ||
|| Oct       1.93      1.93        .14        .9   641              n/a                 ||
|| Nov       2.04      2.04        .10        .8   720              n/a                 ||
|| Dec       2.20      2.19        .20       1.5   680              n/a                 ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN      1%      5%     10%     25%     50%     75%     90%     95%     99%     MAX ||
|| 1995      1.3     1.5     1.6     1.7     1.8     2.0     2.1     2.2     2.3     2.5     3.2 ||
||                                                                                      ||
|| YEAR   Arithmetic Geometric Arithmetic  Range   N      Number of Exceedances         ||
||           Mean      Mean      Std Dev                                                ||
|| 1995      1.97      1.95        .21       1.9  8287              n/a                 ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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                                   THC Summary Statistics for 1995
                                   Fort Mackay Monitoring Station
                                   Units are PPM (parts per million)
||-------------------------------------------------------------------------------------||
|| No guidelines                                                                        ||
||-------------------------------------BY SEASON---------------------------------------||
|| SEASON    MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%      MAX ||
|| Winter    1.2     1.3     1.4     1.4     1.6     1.7     1.9     2.0     2.1     2.4      3.1 ||
|| Spring    1.3     1.3     1.4     1.4     1.5     1.6     1.7     1.9     2.0     2.2      2.6 ||
|| Summer    1.3     1.4     1.5     1.5     1.6     1.7     1.9     2.3     2.7     2.9      8.3 ||
|| Autumn    1.3     1.3     1.4     1.4     1.4     1.5     1.6     1.9     2.0     2.2      2.5 ||
||                                                                                      ||
|| SEASON Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances      ||
||           Mean       Mean     Std Dev                                                ||
|| Winter    1.72       1.71         .24       1.9  2123              n/a               ||
|| Spring    1.61       1.60         .19       1.3  2121              n/a               ||
|| Summer    1.83       1.79         .42       7.0  1890              n/a               ||
|| Autumn    1.58       1.57         .20       1.2  1569              n/a               ||
||-------------------------------------BY MONTH----------------------------------------||
|| MONTH     MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%      MAX ||
|| Jan       1.3     1.3     1.4     1.6     1.6     1.7     1.9     2.1     2.1     2.3      2.8 ||
|| Feb       1.3     1.3     1.4     1.4     1.6     1.8     1.9     2.0     2.1     2.4      2.8 ||
|| Mar       1.3     1.3     1.4     1.5     1.5     1.7     1.8     2.0     2.1     2.4      2.6 ||
|| Apr       1.3     1.3     1.4     1.4     1.4     1.5     1.6     1.6     1.8     2.0      2.1 ||
|| May       1.3     1.3     1.4     1.4     1.5     1.6     1.7     1.8     1.8     2.0      2.2 ||
|| Jun       1.4     1.4     1.5     1.5     1.6     1.7     2.0     2.4     2.8     2.9      3.5 ||
|| Jul       1.3     1.4     1.5     1.5     1.6     1.9     2.2     2.7     2.8     4.2      8.3 ||
|| Aug       1.3     1.5     1.5     1.5     1.6     1.6     1.7     1.8     2.0     2.5      3.0 ||
|| Sep       1.3     1.3     1.4     1.5     1.6     1.7     1.8     1.9     1.9     2.3      2.4 ||
|| Oct       1.3     1.3     1.4     1.4     1.5     1.6     1.8     2.0     2.1     2.3      2.4 ||
|| Nov       1.3     1.3     1.3     1.4     1.4     1.5     1.6     1.7     1.8     2.0      2.5 ||
|| Dec       1.2     1.3     1.3     1.4     1.5     1.6     1.8     1.9     2.1     2.5      3.1 ||
||                                                                                      ||
|| MONTH  Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances      ||
||           Mean       Mean     Std Dev                                                ||
|| Jan       1.76       1.75         .21       1.5   740              n/a               ||
|| Feb       1.76       1.75         .23       1.5   670              n/a               ||
|| Mar       1.72       1.70         .23       1.3   737              n/a               ||
|| Apr       1.52       1.51         .13        .8   662              n/a               ||
|| May       1.58       1.57         .15        .9   722              n/a               ||
|| Jun       1.85       1.82         .37       2.1   522              n/a               ||
|| Jul       1.99       1.94         .56       7.0   629              n/a               ||
|| Aug       1.67       1.66         .18       1.7   739              n/a               ||
|| Sep       1.68       1.67         .18       1.1   179              n/a               ||
|| Oct       1.64       1.62         .23       1.1   679              n/a               ||
|| Nov       1.50       1.49         .15       1.2   711              n/a               ||
|| Dec       1.64       1.62         .24       1.9   713              n/a               ||
||--------------------------------------BY YEAR----------------------------------------||
|| YEAR      MIN     1%      5%      10%     25%     50%     75%     90%     95%     99%      MAX ||
|| 1995      1.2     1.3     1.4     1.4     1.5     1.6     1.8     2.0     2.2     2.8      8.3 ||
||                                                                                      ||
|| YEAR   Arithmetic Geometric Arithmetic   Range    N       Number of Exceedances      ||
||           Mean       Mean     Std Dev                                                ||
|| 1995      1.69       1.67         .29       7.1  7703              n/a               ||
||-------------------------------------------------------------------------------------||
   n/a - not applicable          * - no data
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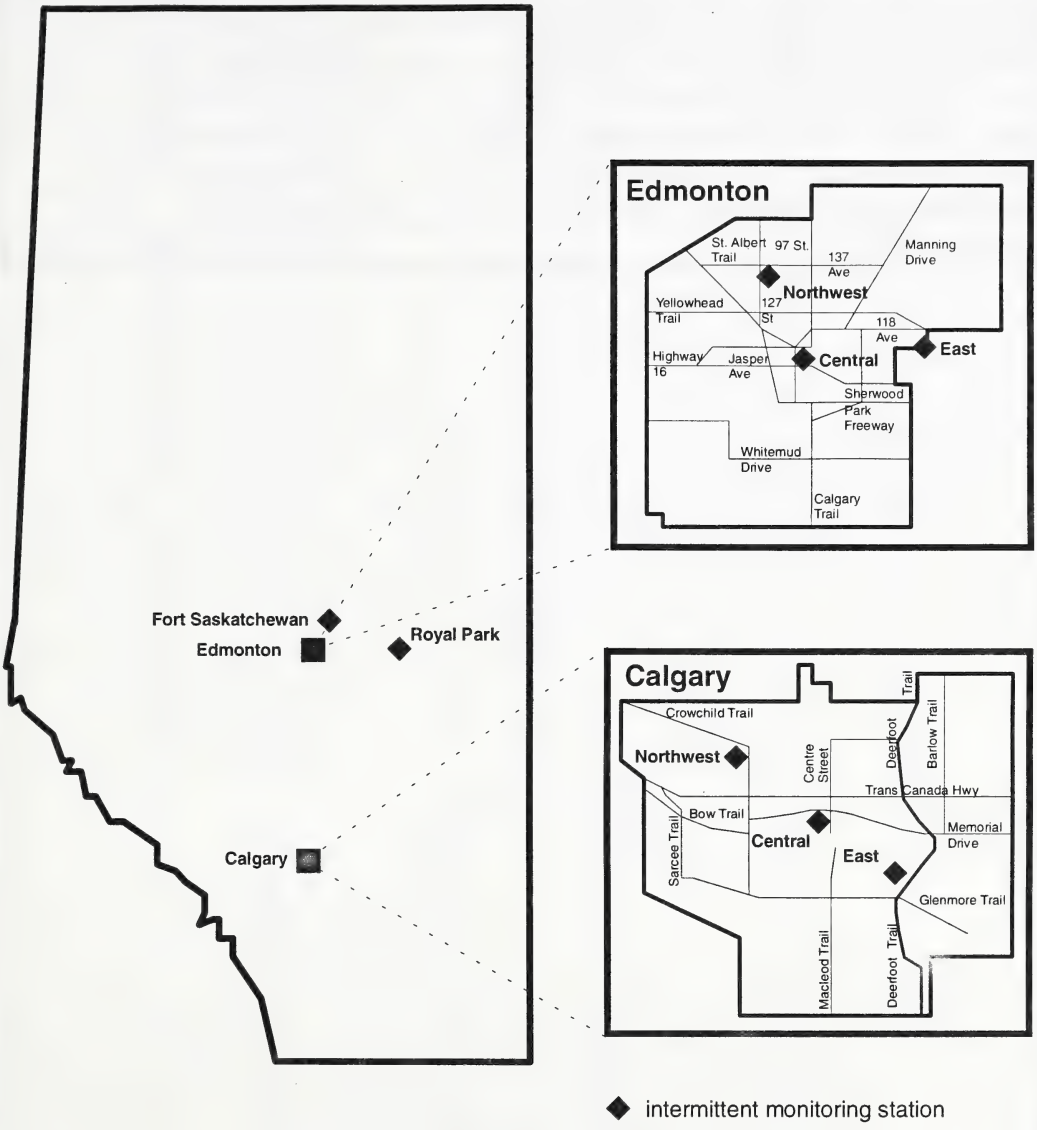
Annual Average Concentration
Year: 1995
Pollutant: THC [ppm]

Year	EDMU	ERMU	EIMU	CDMU	CRMU	CIMU	Fort Sask.	Fort McMurray	Fort Mackay
1976	2.0	2.4	2.4	2.2	1.6	2.0	*	*	*
1977	2.0	2.1	2.6	2.4	2.0	2.0	*	*	*
1978	2.2	2.4	3.6	2.4	2.0	2.1	*	*	*
1979	1.8	2.6	2.5	2.9	2.1	2.0	*	*	*
1980	2.1	2.5	2.5	2.2	1.8	2.2	*	*	*
1981	2.2	2.5	2.8	2.1	1.8	2.3	b	b	*
1982	2.3	2.3	2.5	2.1	1.8	2.0	1.6	1.6a	*
1983	2.3	2.3	3.8	2.2	2.0	2.2	1.4	b	*
1984	2.4	2.2	3.7	2.2	1.9	2.2	1.5	1.9a	*
1985	2.9	2.1	2.0	2.1	1.9	2.1	1.3	1.7	*
1986	2.4	2.2	2.2	2.2	2.0	2.2	2.0	2.0	b
1987	2.5	2.1	1.8	2.3	2.0	2.0	2.1	1.9	1.9
1988	2.2	2.2	1.9	2.1	2.0	2.1	2.3	1.8	1.8
1989	2.1	2.2	1.8	2.2	2.0	2.1	1.8a	2.3	1.9
1990	2.0	2.2	1.6	2.1	2.0	2.0	2.0	1.6	1.9
1991	1.8	2.2	2.8	2.2	2.0	1.9	2.0	1.6	1.6
1992	2.5	2.0	2.4	2.2	1.9	2.0	2.1	1.9	1.8
1993	2.5	1.9	2.2	2.1	2.0	2.2	1.9	2.0	1.8
1994	2.3	2.2	2.3	2.2	2.1	2.2	2.0	2.2	1.7
1995	2.1	2.0	2.2	2.2	2.0	2.2	2.0	2.0	1.7

a 50% to 75% of data available
b less than 50% of data available
* no data available

LOCATION OF INTERMITTENT AIR QUALITY MONITORING STATIONS



Location of Intermittent Monitoring Stations

Station Name	Station Location
Edmonton Central (Downtown) Monitoring Unit (EDMU)	10255 - 104 St.
Edmonton Northwest (Residential) Monitoring Unit (ERMU)	13335 - 127 St.
Edmonton East (Industrial) Monitoring Unit (EIMU)	105 Ave. and 17 St.
Calgary Central (Downtown) Monitoring Unit (CDMU)	611 - 4 St. S.W.
Calgary Northwest (Residential) Monitoring Unit (CRMU)	39 St. and 29 Ave. N.W.
Calgary East (Industrial) Monitoring Unit (CIMU)	49 Ave. and 15 St. S.E.
Fort Saskatchewan Monitoring Unit (FTSK)	9209A - 96 Ave.
Royal Park (RLPK)	10 km northwest of Vegreville

TOTAL SUSPENDED PARTICULATES (μg/m3)

24 hour guideline = 100 μg/m3

EDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	16.6	*	*	48.6	*	*	124.0	20%
	Feb	19.3	*	*	36.0	*	*	49.5	0%
	Mar	27.0	*	*	74.1	*	*	120.9	20%
	Apr	42.1	*	*	59.5	*	*	91.7	0%
	May	13.9	*	*	51.5	*	*	78.7	0%
	Jun	22.5	*	0	60.4	*	*	83.5	0%
	Jul	33.1	*	*	41.2	*	*	54.4	0%
	Aug	16.7	*	*	33.1	*	*	46.1	0%
	Sep	22.8	*	*	60.9	*	*	86.7	0%
	Oct	29.9	*	*	38.5	*	*	56.7	0%
	Nov	17.9	*	*	27.8	*	*	40.4	0%
	Dec	14.7	*	*	28.5	*	*	40.3	0%

ERMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	16.8	*	*	50.8	*	*	122.1	20%
	Feb	19.0	*	*	27.9	*	*	36.7	0%
	Mar	15.6	*	*	55.5	*	*	114.0	17%
	Apr	28.8	*	*	41.8	*	*	83.6	0%
	May	25.9	*	*	38.2	*	*	66.7	0%
	Jun	19.5	*	*	49.9	*	*	65.0	0%
	Jul	31.9	*	*	36.3	*	*	40.8	0%
	Aug	24.1	*	*	40.0	*	*	71.9	0%
	Sep	19.8	*	*	54.4	*	*	88.4	0%
	Oct	27.3	*	*	32.5	*	*	42.3	0%
	Nov	12.1	*	*	23.2	*	*	35.4	0%
	Dec	12.7	*	*	31.8	*	*	46.1	0%

EIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	9.9	*	*	55.1	*	*	125.2	20%
	Feb	11.4	*	*	27.3	*	*	56.7	0%
	Mar	14.3	*	*	37.7	*	*	64.8	0%
	Apr	12.5	*	*	44.2	*	*	127.6	25%
	May	17.0	*	*	32.5	*	*	59.1	0%
	Jun	17.9	*	*	47.3	*	*	68.5	0%
	Jul	27.8	*	*	34.4	*	*	41.2	0%
	Aug	24.5	*	*	54.5	*	*	84.4	0%
	Sep	31.2	*	*	84.0	*	*	122.3	60%
	Oct	25.1	*	*	41.6	*	*	66.7	0%
	Nov	8.6	*	*	19.0	*	*	25.4	0%
	Dec	11.4	*	*	40.3	*	*	65.6	0%

Average Annual Concentration

Year	EDMU	ERMU	EIMU
1980	98.2	81.7	70.2
1981	98.1	62.8	64.2
1982	69.5	49.2	59.3
1983	62.1	53.5	47.3
1984	71.7	48.2	47.3
1985	51.7	38.6	43.2
1986	83.9	43.5	50.1
1987	72.7	45.5	49.9
1988	63.3	39.6	51.6
1989	55.4	42.6	46.0
1990	63.2	47.3	52.1
1991	50.2	40.0	41.3
1992	58.1	42.3	49.8
1993	59.0	47.0	63.7
1994	53.9	44.5	55.3
1995	46.4	40.4	43.8

* - data not available
a - >50 to <75% operational and may not be representative
b - below 50% operational and results not representative
c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

TOTAL SUSPENDED PARTICULATES (µg/m3)

24 hour guideline = 100 µg/m3

CDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	23.5	*	*	79.1	*	*	125.5	40%
	Feb	19.1	*	*	46.0	*	*	64.4	0%
	Mar	18.8	*	*	53.4	*	*	78.9	0%
	Apr	19.9	*	*	33.9	*	*	56.1	0%
	May	18.3	*	*	35.8	*	*	49.1	0%
	Jun	21.0	*	*	38.2	*	*	65.8	0%
	Jul	23.3	*	*	51.2	*	*	69.0	0%
	Aug	24.2	*	*	60.6	*	*	112.3	17%
	Sep	24.3	*	*	53.8	*	*	136.7	20%
	Oct	26.1	*	*	46.9	*	*	70.2	0%
	Nov	23.8	*	*	83.0	*	*	199.1	40%
	Dec	21.1	*	*	31.3	*	*	53.0	0%

CRMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	17.6	*	*	43.7	*	*	66.8	0%
	Feb	15.7	*	*	25.9	*	*	45.5	0%
	Mar	13.1	*	*	45.1	*	*	86.9	0%
	Apr	16.3	*	*	24.6	*	*	43.2	0%
	May	11.9	*	*	25.8	*	*	36.2	0%
	Jun	13.8	*	*	31.2	*	*	54.6	0%
	Jul	17.3	*	*	24.4	*	*	32.2	0%
	Aug	12.3	*	*	22.8	*	*	37.5	0%
	Sep	14.5	*	*	38.0	*	*	68.2	0%
	Oct	11.7	*	*	23.3	*	*	32.7	0%
	Nov	11.6	*	*	28.6	*	*	56.8	0%
	Dec	8.4	*	*	15.6	*	*	35.7	0%

CIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	42.0	*	*	107.0	*	*	154.5	60%
	Feb	27.5	*	*	68.2	*	*	107.0	20%
	Mar	23.2	*	*	64.3	*	*	82.4	0%
	Apr	31.6	*	*	57.9	*	*	104.2	20%
	May	23.1	*	*	60.7	*	*	80.0	0%
	Jun	34.7	*	*	81.3	*	*	114.6	40%
	Jul	63.3	*	*	78.2	*	*	105.3	20%
	Aug	34.0	*	*	57.5	*	*	80.2	0%
	Sep	33.4	*	*	72.0	*	*	137.5	20%
	Oct	52.0	*	*	98.6	*	*	141.5	60%
	Nov	33.9	*	*	115.6	*	*	168.6	60%
	Dec	28.9	*	*	69.7	*	*	120.0	40%

	Average Annual Concentration		
Year	CDMU	CRMU	CIMU
1980	165.0	70.4	150.0
1981	147.0	69.3	133.0
1982	117.0	48.7	98.1
1983	80.7	39.4	81.7
1984	72.1	40.6	70.0
1985	59.1	38.2	62.5
1986	79.5	49.5	83.4
1987	85.3	47.9	75.6
1988	76.8	38.7	71.1
1989	62.1	34.8	68.2
1990	62.4	41.2	73.9
1991	57.3	36.9	74.2
1992	48.5	36.6	70.7
1993	54.9	35.2	81.4
1994	55.5	33.9	80.7
1995	51.3	29.0	77.3

* - data not available
a - >50 to <75% operational and may not be representative
b - below 50% operational and results not representative
c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

TOTAL SUSPENDED PARTICULATES (µg/m3)

24 hour guideline = 100 µg/m3

FTSK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	9.5	*	*	35.7	*	*	67.8	0%
	Feb	7.2	*	*	16.7	*	*	27.5	0%
	Mar	9.2	*	*	26.3	*	*	40.5	0%
	Apr	8.9	*	*	26.2	*	*	66.5	0%
	May	13.5	*	*	26.5	*	*	50.6	0%
	Jun	8.8	*	*	33.8	*	*	46.5	0%
	Jul	15.3	*	*	20.9	*	*	26.6	0%
	Aug	10.3	*	*	17.1	*	*	35.3	0%
	Sep	11.8	*	*	36.2	*	*	53.1	0%
	Oct	11.3	*	*	16.1	*	*	21.4	0%
	Nov	3.6	*	*	12.1	*	*	19.3	0%
	Dec	8.7	*	*	19.7	*	*	38.1	0%

RLPK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK	% of Exceedances
1995	Jan	2.3	*	*	20.0	*	*	52.0	0%
	Feb	4.2	*	*	8.2	*	*	17.1	0%
	Mar	4.5	*	*	9.2	*	*	16.0	0%
	Apr	3.0	*	*	6.8	*	*	8.8	0%
	May	18.4	*	*	29.0	*	*	49.2	0%
	Jun	7.7	*	*	46.9	*	*	99.0	0%
	Jul	11.9	*	*	20.2	*	*	23.4	0%
	Aug	7.3	*	*	14.0	*	*	23.9	0%
	Sep	14.2	*	*	44.6	*	*	73.5	0%
	Oct	12.8	*	*	18.7	*	*	24.6	0%
	Nov	1.7	*	*	6.3	*	*	12.5	0%
	Dec	0.9	*	*	8.5	*	*	18.2	0%

Average Annual Concentration

Year	Ellerslie	Fort Sask.	Royal Park
1982	*	35.3	*
1983	*	34.4	*
1984	*	41.2	*
1985	14.3	30.7	*
1986	24.7	36.3	*
1987	28.5	42.6	*
1988	27.1	33.9	*
1989	20.8	28.5a	*
1990	22.0	30.6	*
1991	26.2	26.3	*
1992	*	28.1	*
1993	*	36.5	29.2
1994	*	28.3	24.6
1995	*	23.8	19.9

Ellerslie station decommissioned in 1991

* - data not available
a - >50 to <75% operational and may not be representative
b - below 50% operational and results not representative
c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

BENZO (A) PYRENE (ng/m3)

EDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.11	*	*	0.63	*	*	1.53
	Feb	0.19	*	*	0.37	*	*	0.57
	Mar	0.11	*	*	0.22	*	*	0.32
	Apr	0.05	*	*	0.12	*	*	0.23
	May	0.02	*	*	0.06	*	*	0.10
	Jun	0.07	*	*	0.21	*	*	0.59
	Jul	0.02	*	*	0.03	*	*	0.04
	Aug	0.04	*	*	0.06	*	*	0.10
	Sep	0.08	*	*	0.26	*	*	0.42
	Oct	0.09	*	*	0.12	*	*	0.14
	Nov	0.04	*	*	0.06	*	*	0.12
	Dec	0.07	*	*	0.28	*	*	0.49

ERMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.08	*	*	0.99	*	*	1.99
	Feb	0.18	*	*	0.34	*	*	0.54
	Mar	0.08	*	*	0.18	*	*	0.32
	Apr	0.03	*	*	0.04	*	*	0.08
	May	0.05	*	*	0.07	*	*	0.13
	Jun	0.04	*	*	0.06	*	*	0.10
	Jul	0.01	*	*	0.03	*	*	0.06
	Aug	0.03	*	*	0.10	*	*	0.15
	Sep	0.00	*	*	0.16	*	*	0.55
	Oct	0.10	*	*	0.15	*	*	0.29
	Nov	0.03	*	*	0.08	*	*	0.19
	Dec	0.00	*	*	0.65	*	*	1.27

EIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.00	*	*	0.42	*	*	0.75
	Feb	0.09	*	*	0.18	*	*	0.38
	Mar	0.03	*	*	0.12	*	*	0.33
	Apr	0.00	*	*	0.02	*	*	0.07
	May	0.02	*	*	0.02	*	*	0.03
	Jun	0.03	*	*	0.04	*	*	0.05
	Jul	0.01	*	*	0.01	*	*	0.02
	Aug	0.00	*	*	0.03	*	*	0.10
	Sep	0.00	*	*	0.08	*	*	0.20
	Oct	0.07	*	*	0.10	*	*	0.11
	Nov	0.01	*	*	0.02	*	*	0.03
	Dec	0.00	*	*	0.33	*	*	0.67

Average Annual Concentration

Year	EDMU	ERMU	EIMU
1982	0.22	0.11	0.07
1983	0.20	0.10	0.05
1984	0.25	0.14	0.11
1985	0.15	0.09	0.06
1986	0.38	0.17	0.07
1987	0.18	0.13	0.07
1988	0.52	0.21	0.09
1989	0.27	0.31	0.08
1990	0.27	0.25	0.05
1991	0.13	0.12	0.02
1992	0.15	0.10	0.04
1993	0.24	0.19	0.09
1994	0.37	0.42	0.18
1995	0.20	0.24	0.12

* - data not available

a - >50 to <75% operational and may not be representative

b - below 50% operational and results not representative

c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

BENZO (A) PYRENE (ng/m3)

CDMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	0.17	*	*	0.63	*	*	1.16
Feb	0.08	*	*	0.22	*	*	0.38
Mar	0.08	*	*	0.14	*	*	0.23
Apr	0.04	*	*	0.07	*	*	0.12
May	0.02	*	*	0.05	*	*	0.06
Jun	0.04	*	*	0.06	*	*	0.07
Jul	0.01	*	*	0.02	*	*	0.04
Aug	0.03	*	*	0.05	*	*	0.07
Sep	0.06	*	*	0.13	*	*	0.23
Oct	0.08	*	*	0.16	*	*	0.27
Nov	0.04	*	*	0.23	*	*	0.50
Dec	0.08	*	*	0.35	*	*	0.68

CRMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	0.07	*	*	0.47	*	*	1.41
Feb	0.06	*	*	0.16	*	*	0.31
Mar	0.03	*	*	0.07	*	*	0.14
Apr	0.01	*	*	0.01	*	*	0.02
May	0.02	*	*	0.03	*	*	0.04
Jun	0.00	*	*	0.00	*	*	0.02
Jul	0.00	*	*	0.00	*	*	0.01
Aug	0.01	*	*	0.02	*	*	0.04
Sep	0.01	*	*	0.03	*	*	0.08
Oct	0.02	*	*	0.07	*	*	0.15
Nov	0.02	*	*	0.08	*	*	0.18
Dec	0.00	*	*	0.17	*	*	0.67

CIMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	0.12	*	*	0.68	*	*	1.08
Feb	0.08	*	*	0.30	*	*	0.46
Mar	0.07	*	*	0.13	*	*	0.35
Apr	0.01	*	*	0.04	*	*	0.07
May	0.02	*	*	0.10	*	*	0.17
Jun	0.00	*	*	0.03	*	*	0.09
Jul	0.00	*	*	0.01	*	*	0.03
Aug	0.03	*	*	0.05	*	*	0.08
Sep	0.08	*	*	0.11	*	*	0.20
Oct	0.08	*	*	0.22	*	*	0.40
Nov	0.03	*	*	0.23	*	*	0.52
Dec	0.08	*	*	0.62	*	*	1.41

Average Annual Concentration

Year	CDMU	CRMU	CIMU
1982	0.44	0.05	0.15
1983	0.31	0.06	0.15
1984	0.25	0.07	0.19
1985	0.12	0.03	0.10
1986	0.21	0.06	0.18
1987	0.27	0.07	0.14
1988	0.47	0.09	0.26
1989	0.41	0.09	0.24
1990	0.18	0.03	0.11
1991	0.13	0.03	0.12
1992	0.10	0.04	0.09
1993	0.19	0.05	0.29
1994	0.37	0.20	0.24
1995	0.17	0.09	0.21

* - data not available

a - >50 to <75% operational and may not be representative

b - below 50% operational and results not representative

c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

BENZO (A) PYRENE (ng/m3)

FTSK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.00	*	*	0.52	*	*	1.24
	Feb	0.08	*	*	0.15	*	*	0.31
	Mar	0.03	*	*	0.06	*	*	0.11
	Apr	0.01	*	*	0.02	*	*	0.03
	May	0.02	*	*	0.03	*	*	0.04
	Jun	0.01	*	*	0.03	*	*	0.05
	Jul	0.00	*	*	0.00	*	*	0.01
	Aug	0.00	*	*	0.02	*	*	0.11
	Sep	0.00	*	*	0.06	*	*	0.19
	Oct	0.01	*	*	0.04	*	*	0.05
	Nov	0.00	*	*	0.02	*	*	0.07
	Dec	0.00	*	*	0.16	*	*	0.29

RLPK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.00	*	*	0.02	*	*	0.05
	Feb	0.00	*	*	0.08	*	*	0.31
	Mar	0.00	*	*	0.00	*	*	0.00
	Apr	0.00	*	*	0.00	*	*	0.01
	May	0.01	*	*	0.01	*	*	0.02
	Jun	0.00	*	*	0.01	*	*	0.02
	Jul	0.00	*	*	0.00	*	*	0.01
	Aug	0.00	*	*	0.00	*	*	0.00
	Sep	0.00	*	*	0.03	*	*	0.09
	Oct	0.00	*	*	0.00	*	*	0.02
	Nov	0.00	*	*	0.00	*	*	0.01
	Dec	0.00	*	*	0.00	*	*	0.00

	Average Annual Concentration		
Year	Ellerslie	Fort Sask.	Royal Park
1982	*	0.03	*
1983	*	0.03	*
1984	*	0.10	*
1985	0.01	0.03	*
1986	0.03	0.06	*
1987	0.02	0.05	*
1988	0.07	0.10	*
1989	0.03	0.03	*
1990	0.01	0.03	*
1991	0.01	0.03	*
1992	*	0.04	*
1993	*	0.06	*
1994	*	0.16	0.01
1995	*	0.09	0.01

Ellerslie station decommissioned in 1991

* - data not available
a - >50 to <75% operational and may not be representative
b - below 50% operational and results not representative
c - TSP samples collected from 1988 to 1992 were not analyzed for sulphates or nitrates

SULPHATE (µg/m3)

EDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	2.26	*	*	4.69	*	*	6.79
	Feb	0.75	*	*	1.36	*	*	2.24
	Mar	1.27	*	*	2.99	*	*	5.67
	Apr	1.52	*	*	2.68	*	*	3.74
	May	1.38	*	*	2.31	*	*	3.58
	Jun	0.98	*	*	1.65	*	*	2.21
	Jul	1.05	*	*	1.85	*	*	3.50
	Aug	0.83	*	*	1.25	*	*	2.18
	Sep	0.99	*	*	2.17	*	*	3.15
	Oct	0.74	*	*	1.17	*	*	1.70
	Nov	2.19	*	*	3.54	*	*	6.98
	Dec	1.21	*	*	2.85	*	*	5.68

ERMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	3.17	*	*	5.59	*	*	7.51
	Feb	0.96	*	*	1.49	*	*	2.08
	Mar	1.45	*	*	3.33	*	*	6.90
	Apr	1.75	*	*	3.00	*	*	4.10
	May	1.59	*	*	2.78	*	*	4.95
	Jun	1.05	*	*	1.62	*	*	2.45
	Jul	1.14	*	*	1.93	*	*	2.91
	Aug	0.98	*	*	1.26	*	*	1.87
	Sep	0.86	*	*	1.81	*	*	2.84
	Oct	0.66	*	*	1.29	*	*	1.90
	Nov	2.30	*	*	4.14	*	*	7.97
	Dec	1.76	*	*	4.11	*	*	8.25

EIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	2.63	*	*	5.21	*	*	8.99
	Feb	0.73	*	*	1.69	*	*	3.66
	Mar	0.67	*	*	2.78	*	*	5.98
	Apr	1.44	*	*	2.73	*	*	3.92
	May	1.02	*	*	1.47	*	*	1.86
	Jun	0.62	*	*	1.33	*	*	2.19
	Jul	0.84	*	*	1.43	*	*	1.97
	Aug	0.96	*	*	1.28	*	*	1.61
	Sep	0.81	*	*	1.76	*	*	2.61
	Oct	0.78	*	*	1.21	*	*	1.60
	Nov	1.63	*	*	2.81	*	*	5.80
	Dec	1.39	*	*	4.80	*	*	9.05

Average Annual Concentration

Year	EDMU	ERMU	EIMU
1985	1.20	1.18	1.36
1986	1.78	1.16	1.44
1987	1.35	1.15	1.30
1988	b	b	b
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	2.15	2.10	2.43
1994	1.95	2.26	2.25
1995	2.40	2.70	2.38

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SULPHATE (µg/m3)

CDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	2.06	*	*	4.53	*	*	7.83
	Feb	0.68	*	*	1.50	*	*	2.97
	Mar	0.95	*	*	2.09	*	*	3.79
	Apr	2.51	*	*	3.22	*	*	4.71
	May	1.47	*	*	2.28	*	*	4.57
	Jun	0.55	*	*	1.34	*	*	1.95
	Jul	1.28	*	*	1.46	*	*	1.88
	Aug	0.76	*	*	1.47	*	*	2.18
	Sep	0.83	*	*	1.86	*	*	2.49
	Oct	0.44	*	*	1.25	*	*	2.18
	Nov	0.99	*	*	3.28	*	*	5.27
	Dec	0.91	*	*	2.16	*	*	3.41

CRMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	1.59	*	*	3.70	*	*	6.05
	Feb	0.44	*	*	1.38	*	*	2.86
	Mar	0.67	*	*	1.70	*	*	2.98
	Apr	2.35	*	*	3.04	*	*	4.37
	May	1.53	*	*	2.30	*	*	4.24
	Jun	0.74	*	*	1.41	*	*	2.03
	Jul	0.91	*	*	1.28	*	*	1.69
	Aug	0.52	*	*	1.32	*	*	2.50
	Sep	0.82	*	*	2.03	*	*	3.12
	Oct	0.37	*	*	0.94	*	*	1.70
	Nov	0.93	*	*	2.11	*	*	3.76
	Dec	0.71	*	*	1.74	*	*	2.22

CIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	2.55	*	*	5.71	*	*	10.11
	Feb	0.87	*	*	1.97	*	*	3.40
	Mar	1.61	*	*	2.74	*	*	4.12
	Apr	2.77	*	*	3.59	*	*	5.01
	May	1.79	*	*	2.84	*	*	5.19
	Jun	0.90	*	*	1.89	*	*	3.24
	Jul	1.35	*	*	1.76	*	*	2.29
	Aug	0.65	*	*	1.79	*	*	2.70
	Sep	0.89	*	*	2.08	*	*	2.93
	Oct	0.55	*	*	1.70	*	*	2.49
	Nov	1.21	*	*	5.08	*	*	8.21
	Dec	1.24	*	*	4.09	*	*	8.18

Average Annual Concentration

Year	CDMU	CRMU	CIMU
1985	1.84	1.28	2.28
1986	1.59	1.20	1.85
1987	1.83	1.19	1.35
1988	b	b	b
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	2.15	1.83	2.55
1994	2.02	1.61	2.45
1995	2.19	1.90	2.92

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SULPHATE (µg/m3)

FTSK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	2.70	*	*	6.45	*	*	12.12
	Feb	0.85	*	*	1.34	*	*	2.23
	Mar	1.17	*	*	3.32	*	*	7.95
	Apr	1.07	*	*	2.49	*	*	3.67
	May	1.38	*	*	2.03	*	*	3.26
	Jun	0.69	*	*	1.28	*	*	2.03
	Jul	0.88	*	*	1.61	*	*	2.89
	Aug	0.65	*	*	1.20	*	*	2.86
	Sep	0.52	*	*	1.47	*	*	2.80
	Oct	0.54	*	*	1.08	*	*	1.52
	Nov	1.24	*	*	1.95	*	*	2.50
	Dec	1.16	*	*	4.20	*	*	8.08

RLPK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	1.73	*	*	4.45	*	*	12.61
	Feb	0.69	*	*	1.42	*	*	3.34
	Mar	1.16	*	*	2.66	*	*	4.81
	Apr	0.45	*	*	1.59	*	*	3.00
	May	0.76	*	*	1.45	*	*	1.79
	Jun	0.78	*	*	1.07	*	*	1.85
	Jul	1.00	*	*	1.22	*	*	1.70
	Aug	0.61	*	*	0.89	*	*	1.24
	Sep	0.42	*	*	1.17	*	*	2.21
	Oct	0.70	*	*	0.95	*	*	1.41
	Nov	0.78	*	*	1.91	*	*	4.41
	Dec	1.62	*	*	2.91	*	*	4.58

	Average Annual Concentration		
Year	Ellerslie	Fort Sask.	Royal Park
1985	0.59	1.49	*
1986	1.16	1.85	*
1987	1.1	1.38	*
1988	b	b	*
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	*	2.10	1.55
1994	*	2.35	1.46
1995	*	2.35	1.76

Ellerslie station decommissioned in 1991

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NITRATE (µg/m3)

EDMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	1.06	*	*	5.85	*	*	16.99
	Feb	0.52	*	*	1.17	*	*	2.45
	Mar	0.43	*	*	2.01	*	*	5.29
	Apr	0.26	*	*	0.75	*	*	1.47
	May	0.35	*	*	0.63	*	*	0.84
	Jun	0.29	*	*	0.74	*	*	1.03
	Jul	0.22	*	*	0.40	*	*	0.60
	Aug	0.16	*	*	0.33	*	*	0.45
	Sep	0.32	*	*	1.06	*	*	2.06
	Oct	0.41	*	*	0.48	*	*	0.63
	Nov	0.27	*	*	1.11	*	*	2.44
	Dec	0.64	*	*	1.79	*	*	3.54

ERMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	1.20	*	*	5.83	*	*	16.78
	Feb	0.43	*	*	0.95	*	*	1.70
	Mar	0.23	*	*	1.88	*	*	4.61
	Apr	0.09	*	*	0.50	*	*	1.00
	May	0.16	*	*	0.40	*	*	0.81
	Jun	0.17	*	*	0.65	*	*	0.97
	Jul	0.20	*	*	0.34	*	*	0.42
	Aug	0.11	*	*	0.59	*	*	1.21
	Sep	0.16	*	*	1.14	*	*	2.41
	Oct	0.26	*	*	0.35	*	*	0.48
	Nov	0.19	*	*	0.97	*	*	2.64
	Dec	0.35	*	*	1.89	*	*	3.26

EIMU		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.67	*	*	6.73	*	*	18.14
	Feb	0.36	*	*	1.38	*	*	3.56
	Mar	0.21	*	*	1.96	*	*	6.39
	Apr	0.09	*	*	0.73	*	*	2.20
	May	0.16	*	*	0.36	*	*	0.69
	Jun	0.15	*	*	0.49	*	*	0.70
	Jul	0.15	*	*	0.26	*	*	0.32
	Aug	0.20	*	*	0.57	*	*	1.11
	Sep	0.22	*	*	0.91	*	*	1.83
	Oct	0.33	*	*	0.66	*	*	1.41
	Nov	0.20	*	*	1.17	*	*	2.97
	Dec	0.32	*	*	2.23	*	*	4.25

	Average Annual Concentration		
Year	EDMU	ERMU	EIMU
1985	0.76	0.59	0.61
1986	1.03	0.80	0.77
1987	0.95	0.69	0.84
1988	b	b	b
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	1.19	1.06	1.40
1994	1.17	1.28	1.31
1995	1.38	1.30	1.48

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NITRATE (µg/m3)

CDMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	1.55	*	*	4.13	*	*	10.37
Feb	0.70	*	*	1.10	*	*	1.93
Mar	0.26	*	*	1.13	*	*	2.13
Apr	0.26	*	*	0.73	*	*	1.32
May	0.08	*	*	0.49	*	*	0.79
Jun	0.21	*	*	0.53	*	*	0.97
Jul	0.38	*	*	0.60	*	*	0.76
Aug	0.33	*	*	0.71	*	*	1.47
Sep	0.36	*	*	0.70	*	*	1.30
Oct	0.34	*	*	0.89	*	*	1.39
Nov	0.41	*	*	2.10	*	*	3.89
Dec	0.39	*	*	1.66	*	*	3.12

CRMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	0.67	*	*	2.65	*	*	6.07
Feb	0.34	*	*	0.81	*	*	1.40
Mar	0.12	*	*	0.89	*	*	2.10
Apr	0.07	*	*	0.27	*	*	0.44
May	0.04	*	*	0.30	*	*	0.60
Jun	0.21	*	*	0.52	*	*	0.85
Jul	0.14	*	*	0.34	*	*	0.46
Aug	0.09	*	*	0.28	*	*	0.46
Sep	0.10	*	*	0.51	*	*	1.45
Oct	0.21	*	*	0.45	*	*	0.87
Nov	0.21	*	*	0.79	*	*	1.28
Dec	0.27	*	*	1.21	*	*	2.41

CIMU	MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995 Jan	1.64	*	*	4.10	*	*	9.02
Feb	0.63	*	*	1.18	*	*	1.91
Mar	0.22	*	*	1.44	*	*	2.83
Apr	0.23	*	*	1.02	*	*	1.85
May	0.13	*	*	0.62	*	*	1.11
Jun	0.46	*	*	1.03	*	*	1.63
Jul	0.73	*	*	0.84	*	*	1.01
Aug	0.51	*	*	0.76	*	*	1.10
Sep	0.30	*	*	0.62	*	*	1.12
Oct	0.24	*	*	1.05	*	*	1.60
Nov	0.44	*	*	2.87	*	*	4.78
Dec	0.78	*	*	1.94	*	*	3.10

Average Annual Concentration

Year	CDMU	CRMU	CIMU
1985	0.82	0.52	0.78
1986	1.10	0.80	0.94
1987	1.13	0.68	0.86
1988	b	b	b
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	1.13	0.69	1.54
1994	1.21	0.81	1.29
1995	1.22	0.74	1.44

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NITRATE (µg/m3)

FTSK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.28	*	*	4.97	*	*	15.68
	Feb	0.42	*	*	1.21	*	*	2.55
	Mar	0.18	*	*	1.40	*	*	4.34
	Apr	0.03	*	*	0.27	*	*	1.00
	May	0.08	*	*	0.21	*	*	0.46
	Jun	0.18	*	*	0.42	*	*	0.63
	Jul	0.09	*	*	0.17	*	*	0.21
	Aug	0.07	*	*	0.19	*	*	0.50
	Sep	0.18	*	*	0.50	*	*	1.12
	Oct	0.12	*	*	0.35	*	*	1.05
	Nov	0.16	*	*	0.67	*	*	2.33
	Dec	0.37	*	*	1.49	*	*	4.11

RLPK		MIN	25 %	50 %	MEAN	75 %	90 %	PEAK
1995	Jan	0.03	*	*	2.89	*	*	12.58
	Feb	0.14	*	*	0.76	*	*	1.89
	Mar	0.20	*	*	0.74	*	*	1.51
	Apr	0.02	*	*	0.08	*	*	0.14
	May	0.08	*	*	0.20	*	*	0.42
	Jun	0.36	*	*	0.66	*	*	0.99
	Jul	0.17	*	*	0.22	*	*	0.31
	Aug	0.07	*	*	0.24	*	*	0.37
	Sep	0.19	*	*	0.73	*	*	1.59
	Oct	0.13	*	*	0.27	*	*	0.49
	Nov	0.12	*	*	0.40	*	*	1.06
	Dec	0.16	*	*	0.67	*	*	1.58

Average Annual Concentration

Year	Ellerslie	Fort Sask.	Royal Park
1985	0.24	0.53	*
1986	0.63	0.65	*
1987	0.53	0.63	*
1988	b	b	*
1989	c	c	c
1990	c	c	c
1991	c	c	c
1992	c	c	c
1993	*	0.82	0.30
1994	*	1.06	0.63
1995	*	0.97	0.66

Ellerslie station decommissioned in 1991

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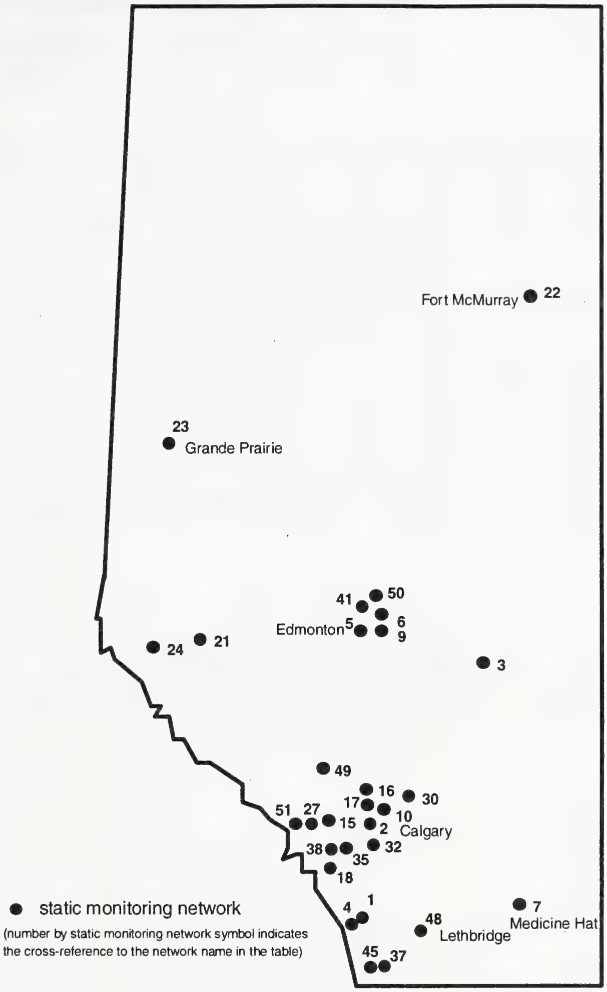
Location of Static Air Quality Monitoring Networks in 1995

Map Location	Network Location
1	Blairmore
2	Calgary
3	Camrose
4	Coleman (2 networks)
5	Edmonton
6	Fort Saskatchewan
7	Medicine Hat
9	Sherwood Park
10	Balzac
15	Cochrane
16	Carstairs
17	Crossfield
18	Diamond Valley
21	Edson
22	Fort McMurray
23	Grande Prairie
24	Hinton
27	Jumping Pound
30	Lone Pine Creek
32	Mazeppa
35	Okotoks
37	Pincher Creek
38	Quirk Creek
41	St. Albert
45	Waterton
48	Lethbridge
49	Raven Brood
50	Redwater (2 networks)
51	Exshaw


Fort McMurray ● 22
23
● Grande Prairie
41
50
Edmonton 5
6
9
● 24
● 21
● 3
● 49
16
30
17
10
51
27
15
2
Calgary
38
35
32
18
4
1
48
Lethbridge
● 7
Medicine Hat
45
37
● static monitoring network
(number by static monitoring network symbol indicates the cross-reference to the network name in the table)

Static Monitoring Results for 1995
TOTAL DUSTFALL
One-Month Monitoring Period
Residential Guideline: 53 mg/100 cm^2/30 days
Industrial Guideline: 158 mg/100 cm^2/30 days
Units: mg/100 cm^2/30 days

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Blairmore	7.0	27.3	47.7	281.1	179.8	205.5	n/a	n/a	n/a	n/a	n/a	n/a
Calgary	16.1	30.3	69.0	57.3	42.1	49.5	n/a	n/a	n/a	n/a	n/a	n/a
Camrose	4.2	11.5	42.2	26.2	43.4	29.4	n/a	n/a	n/a	n/a	n/a	n/a
Coleman	12.4	32.1	36.6	42.9	65.3	43.7	n/a	n/a	n/a	n/a	n/a	n/a
Edmonton	13.0	22.3	44.7	40.4	40.0	55.5	n/a	n/a	n/a	n/a	n/a	n/a
Exshaw	24.5	36.2	28.8	110.5	42.9	47.8	n/a	n/a	n/a	n/a	n/a	n/a
Fort Saskatchewan	4.8	11.9	16.4	24.7	17.0	25.4	n/a	n/a	n/a	n/a	n/a	n/a
Lethbridge	51.0	131.3	50.9	59.6	58.1	139.8	n/a	n/a	n/a	n/a	n/a	n/a
Sherwood Park	7.3	11.6	25.5	27.8	30.6	43.8	n/a	n/a	n/a	n/a	n/a	n/a

Station	Annual Average	Exceedances of the Residential Guideline	Exceedances of the Industrial Guideline	# of Stations
Blairmore	124.7	50.0%	25.0%	2
Calgary	43.7	0.294	0.0%	3
Camrose	26.1	0.0%	0.0%	1
Coleman	39.3	28.1%	0.0%	10
Edmonton	35.7	17.4%	1.2%	29
Exshaw	48.4	23.3%	3.3%	5
Fort Saskatchewan	16.7	0.0%	0.0%	1
Lethbridge	81.8	66.7%	0.0%	1
Sherwood Park	22.7	6.7%	0.0%	3

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages
TOTAL DUSTFALL
One-Month Monitoring Period
Units: mg/100cm^2/30 days

Year	Blairmore		Calgary		Camrose		Coleman		Edmonton		Exshaw	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	110.6	2	72.1	28	26.9	1	273.3	11	85.3	24	117.7	11
1981	89.6	2	70.2	28	42.3	1	216.8	11	90.2	24	93.8	11
1982	91.6	2	61.1	28	44.5	1	210.5	12	68.6	24	82.2	11
1983	95.3	2	58.9	38	33.5	1	161.0	12	61.1	29	64.8	11
1984	62.3	2	47.8	38	41.9	1	143.4	12	64.7	29	88.3	11
1985	45.3	2	56.5	38	44.0	1	168.3	12	65.4	29	80.3	5
1986	62.6	2	49.5	38	24.4	1	125.6	12	56.3	29	61.4	5
1987	68.0	2	65.7	37	23.5	1	122.6	12	54.9	29	46.9	5
1988	80.7	2	89.1	6	39.5	1	115.6	12	61.8	29	65.2	5
1989	53.3	2	96.3	6	55.9	1	104.4	12	69.0	29	72.8	5
1990	47.5	2	61.3	3	40.7	1	35.0	11	58.2	29	59.5	5
1991	57.7	2	59.6	3	36.8	1	49.3	11	57.9	29	44.5	5
1992	43.9	2	67.4	3	30.3	1	38.8	11	58.8	29	60.4	5
1993	42.9	2	79.8	3	n/a	0	29.8	12	38.4	29	34.1	5
1994	70.3	2	55.8	3	25.7	1	32.6	11	41.6	29	38.8	6
1995	124.7	2	43.7	3	26.1	1	39.3	10	35.7	29	48.4	5

Year	Fort Saskatchwan		Lethbridge		Medicine Hat		Red Deer		Sherwood Park	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	n/a	0	109.0	6	42.8	5	99.9	1	63.8	3
1981	35.3	1	114.2	5	74.0	5	68.1	1	66.4	3
1982	38.5	1	69.2	5	47.7	5	42.0	1	63.8	3
1983	40.0	1	77.5	6	48.6	5	36.5	1	45.8	3
1984	95.1	1	81.8	6	42.0	5	34.7	1	47.3	3
1985	55.0	1	95.7	6	46.0	5	40.4	1	52.3	3
1986	39.2	1	99.9	6	34.9	5	24.3	1	34.3	3
1987	45.5	1	93.0	6	33.3	5	28.0	1	28.2	3
1988	42.8	1	47.8	6	43.1	5	36.1	1	32.2	3
1989	71.4	1	n/a	0	45.2	5	35.5	1	42.1	3
1990	24.4	1	96.3	6	30.1	5	26.1	1	52.2	3
1991	26.4	1	132.6	1	n/a	0	33.0	1	33.6	3
1992	15.9	1	137.3	1	n/a	0	12.4	1	39.8	3
1993	37.3	1	117.4	1	n/a	0	n/a	0	24.2	3
1994	18.6	1	111.9	1	n/a	0	n/a	0	37.6	3
1995	16.7	1	81.8	1	n/a	0	n/a	0	22.7	3

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
CALCIUM
One-Month Monitoring Period
Units: mg/100 cm^2/30 days

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Edmonton	2.4	2.8	1.3	2.5	2.7	0.9	n/a	n/a	n/a	n/a	n/a	n/a
Exshaw	8.4	12.2	5.2	10.0	10.2	7.7	n/a	n/a	n/a	n/a	n/a	n/a

Station	Annual Average	# of Stations
Edmonton	2.1	5
Exshaw	9.0	5

Long Term Averages
CALCIUM
One-Month Monitoring Period
Units: mg/100 cm^2/30 days

Year	Edmonton		Exshaw	
	Annual Average	# of Stations	Annual Average	# of Stations
1980	9.2	3	29.3	11
1981	10.4	3	20.7	11
1982	6.6	3	21.3	11
1983	16.4	3	21.5	11
1984	8.3	3	14.3	11
1985	1.3	2	13.7	5
1986	2.0	4	19.5	5
1987	1.8	2	10.4	5
1988	3.4	5	17.1	5
1989	3.8	5	13.0	5
1990	4.3	5	14.1	5
1991	1.7	5	5.0	5
1992	2.0	5	5.9	5
1993	7.4	5	12.9	5
1994	5.9	5	11.5	5
1995	2.1	5	9.0	5

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
TOTAL SULPHATION
One-Month Monitoring Period
Guideline: 0.50 mg/day/100 cm^2
Units: mg/day/100 cm^2

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Calgary	0.074	0.076	0.104	0.048	0.040	0.043	n/a	n/a	n/a	n/a	n/a	n/a
Camrose	0.091	0.065	0.047	0.038	0.021	0.022	n/a	n/a	n/a	n/a	n/a	n/a
Edmonton	0.067	0.047	0.069	0.038	0.037	0.040	n/a	n/a	n/a	n/a	n/a	n/a
Fort McMurray	0.038	0.113	0.089	0.089	0.060	0.063	0.030	0.036	0.045	0.045	0.036	0.033
Fort Saskatchewan	0.100	0.077	0.063	0.053	0.042	0.068	n/a	n/a	n/a	n/a	n/a	n/a
Grande Prairie	0.031	0.028	0.038	0.013	0.013	0.014	n/a	n/a	n/a	n/a	n/a	n/a
Hinton	0.007	0.008	0.012	0.006	0.005	0.005	n/a	n/a	n/a	n/a	n/a	n/a
Lethbridge	0.025	0.031	0.021	0.019	0.015	0.015	n/a	n/a	n/a	n/a	n/a	n/a
Medicine Hat	0.028	0.034	0.020	0.016	0.014	0.013	n/a	n/a	n/a	n/a	n/a	n/a
Raven Brood	0.012	0.020	0.027	0.017	0.012	0.012	0.016	0.016	0.016	0.016	0.016	0.016
Redwater	0.144	0.089	0.087	0.057	0.049	0.051	n/a	n/a	n/a	n/a	n/a	n/a
St. Albert	0.020	0.016	0.018	0.011	0.006	0.008	n/a	n/a	n/a	n/a	n/a	n/a
Sherwood Park	0.110	0.131	0.068	0.055	0.040	0.055	n/a	n/a	n/a	n/a	n/a	n/a

Station	Annual Average	Exceedances of the Guideline	# of Stations
Calgary	0.064	0%	11
Camrose	0.048	0%	1
Edmonton	0.049	0%	29
Fort McMurray	0.057	0%	6
Fort Saskatchewan	0.067	0%	5
Grande Prairie	0.023	0%	2
Hinton	0.007	0%	3
Lethbridge	0.021	0%	5
Medicine Hat	0.021	0%	4
Raven Brood	0.016	0%	1
Redwater	0.079	0%	4
St. Albert	0.013	0%	2
Sherwood Park	0.077	0%	3

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages
TOTAL SULPHATION
One-Month Monitoring Period
Units: mg/day/100 cm^2

Year	Calgary		Camrose		Edmonton		Fort McMurray		Fort Saskatchewan		Grande Prairie		Hinton		Joffre	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.213	25	0.068	1	0.147	24	0.082	6	0.149	4	0.039	1	0.035	3	0.094	2
1981	0.208	25	0.063	1	0.150	24	0.079	6	0.220	5	0.039	1	0.034	3	0.077	2
1982	0.142	24	0.076	1	0.103	24	0.070	6	0.104	5	0.042	1	0.057	3	0.098	2
1983	0.118	35	0.063	1	0.081	29	0.089	6	0.092	5	0.031	1	0.030	3	0.059	2
1984	0.082	35	0.049	1	0.050	29	0.055	6	0.066	5	0.015	1	0.008	3	0.046	2
1985	0.084	35	0.031	1	0.038	29	0.065	6	0.067	5	0.013	1	0.005	3	0.036	2
1986	0.053	34	0.027	1	0.035	29	0.053	6	0.040	5	0.017	1	0.007	3	0.030	2
1987	0.050	35	0.023	1	0.026	29	0.044	6	0.026	5	0.016	1	0.003	3	0.018	2
1988	0.064	34	0.055	1	0.043	29	0.060	6	0.052	5	0.009	1	0.006	3	0.032	2
1989	0.063	32	0.049	1	0.043	29	0.077	6	0.059	5	0.014	1	0.009	3	0.054	2
1990	0.068	30	0.047	1	0.046	29	0.061	6	0.062	5	0.014	1	0.004	3	0.036	2
1991	0.058	11	0.044	1	0.042	29	0.066	6	0.062	5	0.009	1	0.005	3	0.016	2
1992	0.049	11	0.040	1	0.043	29	0.054	6	0.076	5	0.010	1	0.007	3	0.032	2
1993	0.054	11	0.037	1	0.044	29	0.052	6	0.069	5	0.014	1	0.010	3	n/a	0
1994	0.056	11	0.047	1	0.048	29	0.066	6	0.063	5	0.018	2	0.009	3	n/a	0
1995	0.064	11	0.048	1	0.049	29	0.057	6	0.067	5	0.023	2	0.007	3	n/a	0

Year	Lethbridge		Medicine Hat		New Norway		Raven Brood		Red Deer		Redwater		St. Albert		Sherwood Park	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.115	6	0.077	5	n/a	0	n/a	0	0.052	1	0.211	4	n/a	0	0.131	3
1981	0.105	6	0.085	5	n/a	0	n/a	0	0.052	1	0.306	4	n/a	0	0.230	3
1982	0.106	5	0.070	5	n/a	0	n/a	0	0.070	1	0.169	4	n/a	0	0.123	3
1983	0.083	6	0.065	5	n/a	0	n/a	0	0.048	1	0.138	4	n/a	0	0.091	3
1984	0.041	6	0.020	5	n/a	0	0.035	1	0.024	1	0.084	4	0.043	2	0.066	3
1985	0.025	6	0.015	5	n/a	0	0.030	1	0.044	1	0.073	4	0.019	2	0.049	3
1986	0.020	5	0.008	5	0.019	1	0.019	1	0.025	1	0.055	4	0.010	2	0.048	3
1987	0.029	5	0.012	5	0.024	1	0.021	1	0.016	1	0.054	4	0.008	2	0.051	3
1988	0.026	7	0.025	5	0.019	1	0.082	1	0.092	1	0.047	4	0.013	2	0.070	3
1989	0.031	7	0.022	5	0.029	1	0.079	1	0.087	1	0.049	4	0.011	2	0.056	3
1990	0.032	7	0.030	5	0.019	1	0.078	1	0.065	1	0.044	4	0.011	2	0.065	3
1991	0.022	6	0.024	5	0.009	1	0.063	1	0.055	1	0.040	4	0.011	2	0.064	3
1992	0.022	6	0.024	5	0.024	1	0.072	1	0.059	1	0.037	4	0.012	2	0.061	3
1993	0.023	6	0.021	4	n/a	0	0.072	1	0.071	1	0.037	4	0.010	2	0.074	3
1994	0.028	5	0.030	4	n/a	0	0.015	1	n/a	0	0.077	4	0.012	2	0.069	3
1995	0.021	5	0.021	4	n/a	0	0.016	1	n/a	0	0.079	4	0.013	2	0.077	3

n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
TOTAL SULPHATION
Three-Month Monitoring Period
Guideline: 0.50 mg/day/100cm^2
Units: mg/day/100cm^2

Station	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Annual Average	Exceedances of the Guideline	# of Stations
Balzac	0.080	0.032	n/a	n/a	0.056	0%	4
Carstairs	0.078	0.043	n/a	n/a	0.061	0%	4
Cochrane	0.129	0.072	n/a	n/a	0.101	0%	4
Coleman	0.062	0.004	n/a	n/a	0.033	0%	4
Crossfield	0.118	0.042	n/a	n/a	0.080	0%	5
Diamond Valley	0.045	0.014	n/a	n/a	0.027	0%	4
Edson	0.022	0.045	n/a	n/a	0.034	0%	4
Jumping Pound	0.088	0.035	n/a	n/a	0.058	0%	4
Lone Pine Creek	0.052	0.022	n/a	n/a	0.037	0%	5
Mazeppa	0.050	0.031	n/a	n/a	0.038	0%	4
Okotoks	0.034	0.009	n/a	n/a	0.023	0%	5
Pincher Creek	0.031	0.010	n/a	n/a	0.020	0%	6
Quirk Creek	0.026	0.019	n/a	n/a	0.022	0%	6
Redwater	0.130	0.087	n/a	n/a	0.109	0%	4
Waterton	0.065	0.036	n/a	n/a	0.049	0%	8

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages
TOTAL SULPHATION
Three-Month Monitoring Period
Units: mg/day/100 cm^2

Year	Balzac		Bigstone		Blue Ridge		Buck Lake		Caroline		Carstairs	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.140	6	0.054	2	0.071	4	0.056	4	0.067	2	0.096	4
1981	0.134	6	0.042	2	0.078	4	0.054	4	0.076	2	0.071	4
1982	0.102	5	0.045	2	0.089	4	0.099	4	0.082	2	0.104	4
1983	0.097	6	0.037	2	0.042	4	0.046	4	0.050	2	0.081	4
1984	0.103	6	0.023	2	0.049	4	0.046	4	0.038	2	0.074	4
1985	0.071	4	0.022	2	0.050	4	0.053	4	0.041	2	0.051	4
1986	0.043	4	0.038	2	0.031	4	0.059	4	0.031	2	0.033	4
1987	0.046	4	0.027	2	0.035	4	0.046	4	0.054	2	0.031	4
1988	0.110	4	n/a	0	0.088	4	0.084	4	0.093	2	0.083	4
1989	0.062	4	n/a	0	0.043	4	0.049	4	0.043	2	0.052	4
1990	0.057	4	n/a	0	n/a	0	0.039	2	0.035	2	0.041	4
1991	0.062	4	n/a	0	n/a	0	0.057	2	0.061	1	0.038	4
1992	0.055	4	n/a	0	n/a	0	n/a	0	n/a	0	0.030	4
1993	0.041	4	n/a	0	n/a	0	n/a	0	n/a	0	0.054	4
1994	0.069	4	n/a	0	n/a	0	n/a	0	n/a	0	0.074	4
1995	0.080	4	n/a	0	n/a	0	n/a	0	n/a	0	0.078	4

Year	Cochrane		Coleman		Crossfield		Diamond Valley		Didsbury		Edburg	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.144	4	n/a	0	0.159	8	n/a	0	0.099	8	0.071	1
1981	0.136	4	n/a	0	0.166	8	n/a	0	0.077	8	0.074	1
1982	0.102	4	n/a	0	0.146	8	n/a	0	0.077	7	0.111	1
1983	0.103	4	n/a	0	0.135	8	n/a	0	0.076	8	0.068	1
1984	0.087	4	0.176	4	0.094	8	n/a	0	0.067	8	0.070	1
1985	0.073	4	0.129	4	0.082	5	0.035	4	0.061	8	0.070	1
1986	0.046	4	0.077	4	0.056	5	0.018	4	0.058	7	0.056	1
1987	0.065	4	0.070	4	0.050	5	0.017	4	0.052	7	0.025	1
1988	0.108	4	0.189	4	0.122	5	0.073	4	0.093	7	0.113	1
1989	0.075	4	0.141	4	0.061	5	0.043	4	0.047	7	0.147	1
1990	0.067	4	0.104	4	0.063	5	0.034	4	0.037	7	0.050	1
1991	0.059	4	0.094	4	0.059	5	0.026	4	0.062	6	0.084	1
1992	0.051	4	0.082	4	0.050	5	0.038	4	n/a	0	n/a	0
1993	0.079	4	0.157	4	0.049	5	0.019	4	n/a	0	n/a	0
1994	0.095	4	0.205	4	0.093	5	0.038	4	n/a	0	n/a	0
1995	0.129	4	0.062	4	0.0118	5	0.045	4	n/a	0	n/a	0

n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages (continued)
TOTAL SULPHATION
Three-Month Monitoring Period
Units:mg/day/100 cm^2

Year	Edson		Innisfail		Jumping Pound		Kaybob		Kaybob South		Lone Pine Creek	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.055	4	0.089	4	0.115	4	0.113	4	0.164	8	0.092	5
1981	0.032	4	0.083	4	0.084	4	0.114	4	0.159	8	0.079	5
1982	0.063	4	0.102	4	0.111	4	0.105	4	0.103	8	0.115	5
1983	0.031	4	0.064	4	0.075	4	0.068	4	0.061	8	0.065	5
1984	0.021	4	0.081	4	0.083	4	0.073	4	0.064	8	0.077	5
1985	0.027	4	0.065	4	0.049	4	0.050	4	0.070	4	0.067	5
1986	0.016	4	0.044	4	0.064	4	0.058	4	0.051	4	0.046	5
1987	0.016	4	0.045	4	0.033	4	0.042	4	0.051	5	0.047	5
1988	0.032	4	0.096	4	0.098	4	0.109	4	0.131	4	0.088	5
1989	0.021	4	0.067	3	0.050	4	0.040	3	0.061	4	0.053	5
1990	0.023	4	0.060	3	0.050	4	0.040	3	0.061	4	0.050	5
1991	0.018	4	0.088	3	0.050	4	n/a	0	n/a	0	0.036	5
1992	0.038	4	n/a	0	0.036	4	n/a	0	n/a	0	0.026	5
1993	0.018	4	n/a	0	0.034	4	n/a	0	n/a	0	0.044	5
1994	0.030	4	n/a	0	0.065	4	n/a	0	n/a	0	0.047	5
1995	0.022	4	n/a	0	0.088	4	n/a	0	n/a	0	0.052	5

Year	Mayerthorpe		Mazeppa		Nevis		Okotoks		Olds		Pincher Creek	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.031	2	n/a	0	0.102	9	0.106	5	0.065	4	0.052	6
1981	0.075	2	n/a	0	0.100	9	0.082	5	0.067	4	0.064	6
1982	0.044	2	n/a	0	0.094	9	0.082	5	0.073	4	0.060	5
1983	0.031	2	n/a	0	0.067	9	0.064	5	0.064	4	0.048	6
1984	0.031	2	n/a	0	0.063	9	0.074	5	0.063	4	0.046	6
1985	0.020	2	0.021	4	0.060	7	0.065	5	0.050	4	0.033	6
1986	0.017	2	0.018	4	0.040	7	0.051	5	0.034	4	0.020	6
1987	0.016	2	0.019	4	0.038	7	0.041	5	0.032	4	0.016	6
1988	0.040	2	0.077	4	0.092	8	0.128	5	0.103	4	0.076	6
1989	0.028	2	0.043	4	0.087	7	0.055	5	0.066	4	0.038	6
1990	0.028	2	0.043	4	0.048	7	0.058	4	0.060	4	0.033	6
1991	n/a	0	0.037	4	0.091	7	0.044	5	0.057	4	0.045	6
1992	n/a	0	0.034	4	0.016	1	0.029	5	0.019	1	0.027	6
1993	n/a	0	0.038	4	0.021	1	0.019	5	0.052	1	0.036	6
1994	n/a	0	0.052	4	n/a	0	0.026	5	n/a	0	0.035	6
1995	n/a	0	0.050	4	n/a	0	0.034	5	n/a	0	0.031	6

n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages (continued)
TOTAL SULPHATION
Three-Month Monitoring Period
Units:mg/day/100 cm^2

Year	Quirk Creek		Ram River		Red Deer		Redwater		Rimbey		Simonette	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.066	6	0.128	7	0.088	6	n/a	0	0.072	6	0.120	2
1981	0.053	6	0.098	7	0.072	6	n/a	0	0.060	6	0.092	2
1982	0.055	6	0.103	7	0.088	6	n/a	0	0.081	6	0.080	2
1983	0.031	6	0.065	7	0.056	6	n/a	0	0.062	5	0.048	2
1984	0.015	9	0.050	7	0.046	6	0.118	4	0.073	5	0.041	2
1985	0.035	6	0.058	7	0.049	5	0.181	4	0.052	5	0.035	2
1986	0.032	6	0.036	5	0.036	5	0.135	4	0.041	4	0.024	2
1987	0.020	6	0.040	6	0.028	4	0.115	4	0.034	4	0.013	2
1988	0.072	6	0.112	5	0.074	4	0.298	4	0.103	4	0.047	2
1989	0.037	6	0.065	5	0.094	3	0.182	4	0.048	4	0.030	2
1990	0.036	6	0.052	5	0.036	4	0.151	4	0.041	4	0.030	2
1991	0.037	6	0.066	5	0.083	3	0.135	4	0.073	4	n/a	0
1992	0.037	6	n/a	0	n/a	0	0.153	4	n/a	0	n/a	0
1993	0.026	6	n/a	0	n/a	0	0.119	4	n/a	0	n/a	0
1994	0.021	6	n/a	0	n/a	0	0.116	4	n/a	0	n/a	0
1995	0.026	6	n/a	0	n/a	0	0.130	4	n/a	0	n/a	0

Year	Sundre		Valleyview		Waterton		Wimborne		Windfall	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.514	2	0.200	2	0.147	8	0.080	4	0.128	8
1981	0.297	2	0.173	2	0.175	8	0.076	4	0.101	8
1982	0.162	2	0.161	2	0.139	8	0.105	4	0.085	8
1983	0.124	2	0.164	2	0.119	8	0.070	4	0.043	8
1984	0.101	2	0.144	2	0.099	8	0.070	4	0.057	8
1985	0.080	3	0.143	2	0.063	8	0.074	4	0.059	4
1986	0.058	2	0.127	2	0.044	8	0.046	4	0.053	4
1987	0.062	2	0.109	2	0.042	8	0.048	3	0.049	4
1988	0.143	2	0.414	2	0.186	8	0.141	2	0.125	4
1989	0.077	2	0.078	2	0.074	8	0.071	2	0.086	4
1990	0.060	2	0.078	2	0.072	8	0.068	2	0.086	4
1991	0.085	2	n/a	0	0.092	8	0.084	2	n/a	0
1992	n/a	0	n/a	0	0.085	8	n/a	0	n/a	0
1993	n/a	0	n/a	0	0.088	8	n/a	0	n/a	0
1994	n/a	0	n/a	0	0.102	8	n/a	0	n/a	0
1995	n/a	0	n/a	0	0.065	8	n/a	0	n/a	0

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
HYDROGEN SULPHIDE
One-Month Monitoring Period
Guideline: 0.10 mg/day/100 cm^2
Units: mg/day/100 cm^2

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Camrose	0.050	n/a	0.039	0.017	0.035	0.029	n/a	n/a	n/a	n/a	n/a	n/a
Fort McMurray	0.015	0.030	0.028	0.028	0.047	0.004	0.005	0.007	0.009	0.005	0.005	0.004
Fort Saskatchewan	n/a	0.034	0.051	0.018	0.022	0.005	n/a	n/a	n/a	n/a	n/a	n/a
Grande Prairie	0.033	0.020	0.037	0.017	0.019	0.008	n/a	n/a	n/a	n/a	n/a	n/a
Hinton	0.024	0.015	0.048	0.012	0.014	0.009	n/a	n/a	n/a	n/a	n/a	n/a
St. Albert	0.018	0.021	0.035	0.031	0.031	0.027	n/a	n/a	n/a	n/a	n/a	n/a
Sherwood Park	0.027	0.038	0.043	0.028	0.071	0.026	n/a	n/a	n/a	n/a	n/a	n/a

Station	Annual Average	Exceedances of the Guideline	# of Stations
Camrose	0.034	0%	1
Fort McMurray	0.016	0%	6
Fort Saskatchewan	0.026	0%	1
Grande Prairie	0.022	0%	1
Hinton	0.020	0%	3
St. Albert	0.028	0%	2
Sherwood Park	0.039	6%	3

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Average
HYDROGEN SULPHIDE
One-Month Monitoring Period
Units: mg/day/100 cm^2

Year	Camrose		Fort McMurray		Fort Saskatchewan		Grande Prairie		Hinton		Joffre	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.010	1	0.012	6	n/a	0	0.010	1	0.003	3	0.015	2
1981	0.009	1	0.013	6	0.011	1	0.006	1	0.006	1	0.011	2
1982	0.020	1	0.020	6	0.018	1	0.011	1	0.022	3	0.030	2
1983	0.008	1	0.022	6	0.010	1	0.006	1	0.004	3	0.010	2
1984	0.008	1	0.014	6	0.009	1	0.003	1	0.004	3	0.013	2
1985	0.011	1	0.013	6	0.010	1	0.004	1	0.005	3	0.008	2
1986	0.008	1	0.010	6	0.007	1	0.004	1	0.004	3	0.007	2
1987	0.006	1	0.009	6	0.007	1	0.006	1	0.004	3	0.010	2
1988	0.011	1	0.016	6	0.004	1	0.004	1	0.004	3	0.013	2
1989	0.002	1	0.014	6	0.003	1	0.003	1	0.002	3	0.015	2
1990	0.008	1	0.014	6	0.001	1	0.014	1	0.002	3	0.008	2
1991	0.009	1	0.011	6	0.009	1	0.005	1	0.003	3	0.003	2
1992	0.012	1	0.017	6	0.017	1	0.006	1	0.007	3	0.002	2
1993	0.013	1	0.018	6	0.011	1	0.008	1	0.012	3	n/a	0
1994	0.021	1	0.034	6	0.013	1	0.022	1	0.019	3	n/a	0
1995	0.034	1	0.016	6	0.026	1	0.022	1	0.020	3	n/a	0

Year	Lethbridge		Medicine Hat		New Norway		Red Deer		St. Albert		Sherwood Park	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.012	7	0.007	5	n/a	0	0.010	1	n/a	0	0.012	3
1981	0.020	7	0.019	5	n/a	0	0.010	1	n/a	0	0.017	3
1982	0.040	6	0.011	5	n/a	0	0.025	1	n/a	0	0.013	3
1983	0.018	7	0.005	5	n/a	0	0.008	1	n/a	0	0.008	3
1984	0.013	7	0.003	5	n/a	0	0.008	1	0.005	2	0.005	3
1985	0.007	7	n/a	0	n/a	0	0.009	1	0.005	2	0.009	3
1986	0.003	5	n/a	0	0.004	1	0.005	1	0.005	2	0.006	3
1987	n/a	0	n/a	0	0.007	1	0.007	1	0.005	2	0.008	3
1988	n/a	0	n/a	0	0.011	1	0.008	1	0.008	2	0.009	3
1989	n/a	0	n/a	0	0.001	1	0.004	2	0.004	2	0.007	3
1990	n/a	0	n/a	0	0.008	1	0.006	2	0.004	2	0.011	3
1991	n/a	0	n/a	0	0.004	1	n/a	0	0.007	2	0.012	3
1992	n/a	0	n/a	0	0.002	1	n/a	0	0.008	2	0.014	3
1993	n/a	0	n/a	0	n/a	0	n/a	0	0.009	2	0.016	3
1994	n/a	0	n/a	0	n/a	0	n/a	0	0.014	2	0.021	3
1995	n/a	0	n/a	0	n/a	0	n/a	0	0.028	2	0.039	3

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
HYDROGEN SULPHIDE
Three-Month Monitoring Period
Guideline: 0.10 mg/day/100cm^2

Station	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Annual Average	Exceedances of the Guideline	# of Stations
Balzac	0.006	0.005	n/a	n/a	0.006	0%	4
Carstairs	0.005	0.008	n/a	n/a	0.006	0%	4
Cochrane	0.017	0.004	n/a	n/a	0.011	0%	4
Coleman	0.006	0.008	n/a	n/a	0.007	0%	4
Crossfield	0.010	0.007	n/a	n/a	0.009	0%	5
Diamond Valley	0.008	0.009	n/a	n/a	0.008	0%	4
Edson	0.010	0.012	n/a	n/a	0.011	0%	4
Jumping Pound	0.012	0.012	n/a	n/a	0.012	0%	4
Lone Pine Creek	0.013	0.012	n/a	n/a	0.012	0%	5
Mazeppa	0.012	0.005	n/a	n/a	0.009	0%	4
Okotoks	0.015	0.004	n/a	n/a	0.011	0%	5
Pincher Creek	0.003	0.006	n/a	n/a	0.004	0%	6
Quirk Creek	0.005	0.006	n/a	n/a	0.006	0%	6
Redwater	0.027	0.007	n/a	n/a	0.017	0%	4
Waterton	0.013	0.011	n/a	n/a	0.012	0%	8

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages
HYDROGEN SULPHIDE
Three-Month Monitoring Period
Units: mg/day/100cm^2

Year	Balzac		Bigstone		Blue Ridge		Buck Lake		Caroline		Carstairs	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.006	6	0.003	2	0.003	4	0.003	4	0.002	2	0.004	4
1981	0.005	6	0.007	2	0.007	4	0.003	4	0.007	2	0.004	4
1982	0.014	4	0.010	2	0.018	4	0.014	4	0.008	2	0.010	4
1983	0.004	6	0.003	2	0.004	4	0.002	4	0.002	2	0.003	4
1984	0.003	6	0.001	2	0.001	4	0.002	4	0.002	2	0.001	4
1985	0.003	4	0.001	2	0.002	4	0.001	4	0.002	2	0.001	4
1986	0.003	4	0.001	2	0.001	4	0.001	4	0.002	2	0.001	4
1987	0.003	4	0.003	2	0.003	4	0.002	4	0.003	2	0.001	4
1988	0.002	4	0.001	2	0.002	4	0.002	4	0.002	2	0.003	4
1989	0.002	4	0.001	2	0.001	4	0.001	4	0.004	2	0.001	4
1990	0.006	4	0.001	2	0.001	4	0.002	4	0.001	2	0.004	4
1991	0.003	4	n/a	0	n/a	0	0.008	2	0.003	1	0.003	4
1992	0.005	4	n/a	0	n/a	0	n/a	0	n/a	0	0.003	4
1993	0.005	4	n/a	0	n/a	0	n/a	0	n/a	0	0.007	4
1994	0.009	4	n/a	0	n/a	0	n/a	0	n/a	0	0.007	4
1995	0.006	4	n/a	0	n/a	0	n/a	0	n/a	0	0.005	4

Year	Cochrane		Coleman		Crossfield		Diamond Valley		Didsbury		Edburg	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.010	4	n/a	0	0.007	8	n/a	0	0.004	8	0.007	1
1981	0.004	4	n/a	0	0.004	6	n/a	0	0.004	8	0.012	1
1982	0.014	4	n/a	0	0.012	8	n/a	0	0.008	8	0.067	1
1983	0.005	4	n/a	0	0.005	8	n/a	0	0.002	8	0.002	1
1984	0.003	4	0.003	4	0.003	8	n/a	0	0.002	8	0.002	1
1985	0.003	4	0.005	4	0.003	5	0.010	4	0.002	8	0.001	1
1986	0.002	4	0.005	4	0.002	5	0.005	4	0.001	7	0.001	1
1987	0.002	4	0.003	4	0.002	5	0.001	4	0.003	7	0.003	1
1988	0.003	4	0.008	4	0.003	5	0.002	4	0.003	7	0.002	1
1989	0.004	4	0.008	4	0.002	5	0.001	4	0.002	5	0.003	1
1990	0.008	4	0.008	4	0.004	5	0.002	4	0.002	6	0.003	1
1991	0.005	4	0.007	4	0.004	5	0.001	4	0.001	5	n/a	0
1992	0.005	4	0.009	4	0.004	5	0.003	4	n/a	0	n/a	0
1993	0.005	4	0.012	4	0.005	5	0.003	4	n/a	0	n/a	0
1994	0.011	4	0.014	4	0.005	5	0.005	4	n/a	0	n/a	0
1995	0.017	4	0.006	4	0.010	5	0.008	4	n/a	0	n/a	0

n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages (continued)
HYDROGEN SULPHIDE
Three-Month Monitoring Period
Units: mg/day/100cm^2

Year	Edson		Innisfail		Jumping Pound		Kaybob		Kaybob South		Lone Pine Creek	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.005	4	0.003	4	0.004	4	0.005	4	0.010	8	0.004	5
1981	0.003	4	0.004	4	0.004	4	0.007	4	0.036	8	0.003	5
1982	0.019	4	0.007	3	0.015	4	0.011	4	0.013	8	0.018	5
1983	0.002	4	0.002	4	0.003	4	0.005	4	0.004	8	0.003	5
1984	0.002	4	0.003	4	0.002	4	0.003	4	0.003	8	0.003	5
1985	0.002	4	0.002	4	0.001	4	0.004	4	0.003	4	0.004	5
1986	0.001	4	0.001	4	0.001	4	0.003	4	0.002	4	0.002	5
1987	0.001	4	0.002	4	0.001	4	0.002	4	0.004	5	0.003	5
1988	0.001	4	0.002	4	0.002	4	0.003	4	0.003	4	0.002	5
1989	0.002	4	0.004	3	0.002	4	0.001	4	0.002	4	0.002	5
1990	0.002	4	0.002	3	0.005	4	0.001	4	0.002	4	0.003	5
1991	0.002	4	0.000	2	0.004	4	n/a	0	n/a	0	0.003	5
1992	0.002	4	n/a	0	0.005	4	n/a	0	n/a	0	0.005	5
1993	0.005	4	n/a	0	0.004	4	n/a	0	n/a	0	0.006	5
1994	0.007	4	n/a	0	0.007	4	n/a	0	n/a	0	0.008	5
1995	0.010	4	n/a	0	0.012	4	n/a	0	n/a	0	0.013	5

Year	Mayerthorpe		Mazeppa		Nevis		Okotoks		Olds		Pincher Creek	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.002	2	n/a	0	0.004	10	0.003	5	0.008	4	0.003	6
1981	0.004	2	n/a	0	0.004	10	0.004	5	0.003	4	0.005	6
1982	0.016	2	n/a	0	0.009	9	0.009	5	0.010	4	0.003	6
1983	0.002	2	n/a	0	0.003	10	0.003	5	0.002	4	0.002	6
1984	0.002	2	n/a	0	0.004	10	0.002	5	0.002	4	0.001	6
1985	0.001	2	0.007	4	0.002	8	0.002	5	0.001	4	0.001	6
1986	0.001	2	0.005	4	0.001	8	0.002	5	0.001	4	0.001	6
1987	0.002	2	0.005	4	0.002	8	0.002	5	0.002	4	0.001	6
1988	0.001	2	0.002	4	0.003	8	0.002	5	0.002	4	0.002	6
1989	0.001	2	0.002	4	0.003	6	0.002	5	0.003	4	0.001	6
1990	0.001	2	0.001	4	0.002	7	0.004	5	0.001	4	0.002	6
1991	n/a	0	0.001	4	0.015	7	0.003	5	0.003	4	0.003	6
1992	n/a	0	0.003	4	n/a	0	0.007	4	n/a	0	0.004	6
1993	n/a	0	0.005	4	n/a	0	0.004	5	n/a	0	0.005	6
1994	n/a	0	0.006	4	n/a	0	0.007	5	n/a	0	0.007	6
1995	n/a	0	0.012	4	n/a	0	0.015	5	n/a	0	0.003	6

n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

Long Term Averages (continued)
HYDROGEN SULPHIDE
Three-Month Monitoring Period
Units: mg/day/100cm^2

Year	Quirk Creek		Ram River		Red Deer		Redwater		Rimbey		Simonette	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.004	6	0.006	7	0.004	6	n/a	0	0.004	6	0.005	2
1981	0.003	6	0.005	7	0.003	6	n/a	0	0.004	6	0.019	2
1982	0.007	6	0.013	7	0.009	5	n/a	0	0.009	6	0.010	2
1983	0.003	6	0.002	7	0.002	6	n/a	0	0.001	5	0.004	2
1984	0.004	9	0.002	7	0.002	6	0.008	4	0.002	5	0.001	2
1985	0.002	6	0.002	7	0.002	5	0.007	4	0.001	5	0.001	2
1986	0.001	6	0.002	5	0.002	5	0.005	4	0.001	4	0.001	2
1987	0.001	6	0.003	6	0.002	4	0.006	4	0.002	4	0.001	2
1988	0.002	6	0.003	5	0.003	4	0.002	4	0.003	4	0.001	2
1989	0.001	6	0.003	5	0.006	2	0.007	4	0.005	2	0.001	2
1990	0.002	6	0.003	5	0.002	3	0.013	4	0.002	4	0.001	2
1991	0.004	6	0.011	5	0.009	4	0.008	4	0.004	4	n/a	0
1992	0.003	6	n/a	0	n/a	0	0.013	4	n/a	0	n/a	0
1993	0.005	6	n/a	0	n/a	0	0.009	4	n/a	0	n/a	0
1994	0.006	6	n/a	0	n/a	0	0.010	4	n/a	0	n/a	0
1995	0.005	6	n/a	0	n/a	0	0.027	4	n/a	0	n/a	0

Year	Sundre		Valleyview		Waterton		Wimborne		Windfall	
	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations	Annual Average	# of Stations
1980	0.044	2	0.006	2	0.015	8	0.005	4	0.009	8
1981	0.051	2	0.012	2	0.007	8	0.003	4	0.010	8
1982	0.032	2	0.018	2	0.007	8	0.018	4	0.010	8
1983	0.008	2	0.008	2	0.005	8	0.004	4	0.005	8
1984	0.004	2	0.005	2	0.003	8	0.002	4	0.003	8
1985	0.002	3	0.006	2	0.002	8	0.002	4	0.005	4
1986	0.002	2	0.005	2	0.003	8	0.001	4	0.003	4
1987	0.003	2	0.013	2	0.002	8	0.005	3	0.002	4
1988	0.006	2	0.005	2	0.002	8	0.002	4	0.004	4
1989	0.010	2	0.002	1	0.003	8	0.002	2	0.004	4
1990	0.002	2	0.002	1	0.004	8	0.002	2	0.004	4
1991	0.002	2	n/a	0	0.006	8	0.009	2	n/a	0
1992	n/a	0	n/a	0	0.004	8	n/a	0	n/a	0
1993	n/a	0	n/a	0	0.008	8	n/a	0	n/a	0
1994	n/a	0	n/a	0	0.010	8	n/a	0	n/a	0
1995	n/a	0	n/a	0	0.013	8	n/a	0	n/a	0

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

Static Monitoring Results for 1995
FLUORIDE
One-Month Monitoring Period
Guideline: 40 µg/100 cm²/30 days
Units: µg/100 cm²/30 days

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fort Saskatchewan	6.3	3.9	10.1	3.6	5.7	7.6	n/a	n/a	n/a	n/a	n/a	n/a
Redwater	13.1	32.2	22.8	28.0	40.5	80.7	n/a	n/a	n/a	n/a	n/a	n/a

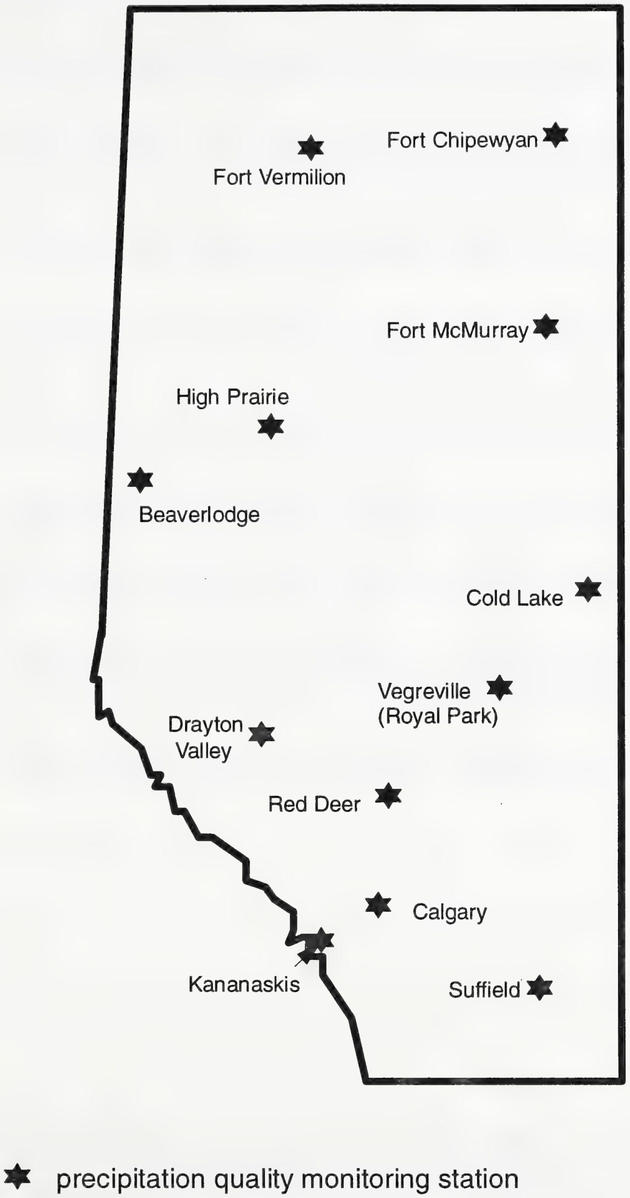
Station	Annual Average	Exceedances of the Guideline	# of Stations
Fort Saskatchewan	6.2	0.0%	1
Redwater	36.2	29.2%	4

Long Term Averages
FLUORIDE
Three-Month Monitoring Period
Units: mg/100 cm²/30 days

Year	Fort Saskatchewan		Redwater	
	Annual Average	# of Stations	Annual Average	# of Stations
1988	n/a	1	52.3	4
1989	n/a	1	27.9	4
1990	n/a	1	27.2	4
1991	16.1	1	31.1	4
1992	9.6	1	24.8	4
1993	7.6	1	38.7	4
1994	2.8	1	35.9	4
1995	6.2	1	36.2	4

n/a no data available (static monitoring networks decommissioned after June 30, 1995)

LOCATION OF PRECIPITATION QUALITY MONITORING STATIONS



n/a	no data available (static monitoring networks decommissioned after June 30, 1995)

BEAVERLODGE

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
4-Jan-95	11-Jan-95	7	48	1.5	4.69	0.0001	0.0004	0.005	0.024	0.001	0.002	0.000	0.001	0.001	0.002	0.000
25-Jan-95	1-Feb-95	7	122	3.8	4.56	0.0012	0.0037	0.063	0.123	0.024	0.010	0.002	0.007	0.010	0.008	0.002
1-Feb-95	15-Feb-95	14	52	1.6	4.31	0.0003	0.0012	0.026	0.054	0.002	0.007	0.000	0.005	0.003	0.004	0.001
15-Feb-95	22-Feb-95	7	122	3.8	4.79	0.0002	0.0006	0.014	0.036	0.000	0.003	0.000	0.001	0.000	0.004	0.001
22-Feb-95	1-Mar-95	7	99	3.1	4.67	0.0004	0.0004	0.022	0.021	0.000	0.007	0.000	0.004	0.001	0.006	0.001
8-Mar-95	15-Mar-95	7	110	3.4	4.44	0.0004	0.0012	0.015	0.071	0.000	0.004	0.000	0.003	0.001	0.003	0.001
29-Mar-95	5-Apr-95	7	231	7.2	4.61	0.0016	0.0048	0.085	0.199	0.032	0.011	0.000	0.009	0.006	0.027	0.006
5-Apr-95	19-Apr-95	14	108	3.4	5.21	0.0007	0.0012	0.036	0.036	0.014	0.007	0.000	0.005	0.005	0.013	0.002
19-Apr-95	26-Apr-95	7	106	3.3	4.59	0.0033	0.0067	0.179	0.108	0.058	0.004	0.000	0.002	0.003	0.028	0.006
3-May-95	10-May-95	7	13	0.4	4.63	0.0000	0.0005	0.014	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-May-95	17-May-95	7	268	8.4	5.97	0.0008	-0.0013	0.041	0.032	0.016	0.007	0.000	0.006	0.010	0.055	0.007
17-May-95	24-May-95	7	263	8.2	5.37	0.0017	0.0017	0.078	0.028	0.027	0.006	0.000	0.004	0.003	0.029	0.004
24-May-95	31-May-95	7	200	6.2	4.84	0.0007	0.0004	0.078	0.050	0.005	0.006	0.000	0.005	0.004	0.036	0.006
31-May-95	7-Jun-95	7	491	15.3	4.46	0.0104	0.0156	0.411	0.248	0.124	0.017	0.000	0.011	0.013	0.056	0.009
7-Jun-95	14-Jun-95	7	269	8.4	4.84	0.0015	0.0015	0.084	0.044	0.012	0.009	0.009	0.006	0.005	0.022	0.005
14-Jun-95	21-Jun-95	7	1242	38.8	4.92	0.0068	0.0082	0.241	0.210	0.071	0.014	0.000	0.007	0.013	0.060	0.010
21-Jun-95	28-Jun-95	7	309	9.6	5.37	0.0012	0.0007	0.063	0.063	0.023	0.007	0.000	0.005	0.008	0.042	0.007
28-Jun-95	5-Jul-95	7	1978	61.7	4.99	0.0062	0.0079	0.387	0.197	0.033	0.003	0.000	0.007	0.005	0.081	0.012
5-Jul-95	12-Jul-95	7	722	22.5	4.52	0.0083	0.0105	0.397	0.147	0.050	0.010	0.000	0.006	0.017	0.039	0.007
12-Jul-95	19-Jul-95	7	227	7.1	5.83	0.0002	-0.0003	0.039	0.024	0.005	0.003	0.000	0.002	0.003	0.026	0.005
19-Jul-95	26-Jul-95	7	503	15.7	5.07	0.0022	0.0019	0.071	0.042	0.022	0.011	0.000	0.006	0.007	0.019	0.003
26-Jul-95	2-Aug-95	7	493	15.4	4.55	0.0054	0.0065	0.251	0.075	0.030	0.005	0.000	0.002	0.004	0.024	0.004
2-Aug-95	9-Aug-95	7	138	4.3	6.35	c	c	c	c	c	c	c	c	c	c	c
9-Aug-95	16-Aug-95	7	147	4.6	5.2	0.0009	0.0009	0.043	0.016	0.012	0.005	0.000	0.003	0.005	0.013	0.002
16-Aug-95	23-Aug-95	7	162	5.1	5.06	0.0009	0.0011	0.041	0.020	0.011	0.010	0.000	0.007	0.009	0.007	0.001
23-Aug-95	30-Aug-95	7	111	3.5	5.84	0.0008	0.0006	0.031	0.020	0.016	0.012	0.000	0.006	0.007	0.017	0.003
4-Sep-95	11-Oct-95	37	42	1.3	6.04	0.0002	0.0000	0.011	0.006	0.005	0.003	0.000	0.002	0.003	0.008	0.002
13-Sep-95	20-Sep-95	7	150	4.7	5.28	0.0006	0.0004	0.029	0.011	0.007	0.004	0.000	0.003	0.004	0.011	0.002
27-Sep-95	4-Oct-95	7	43	1.3	5.11	0.0005	0.0007	0.038	0.014	0.009	0.003	0.000	0.002	0.003	0.011	0.002
11-Oct-95	18-Oct-95	7	278	8.7	5.67	0.0007	-0.0001	0.026	0.017	0.011	0.007	0.000	0.004	0.004	0.023	0.002
1-Nov-95	8-Nov-95	7	69	2.2	5.99	0.0002	-0.0002	0.014	0.013	0.005	0.003	0.000	0.001	0.002	0.015	0.002
8-Nov-95	15-Nov-95	7	50	1.6	6.61	0.0000	-0.0008	0.006	0.012	0.002	0.001	0.000	0.001	0.002	0.022	0.001
15-Nov-95	22-Nov-95	7	182	5.7	6.11	0.0002	-0.0012	0.039	0.022	0.006	0.006	0.000	0.003	0.002	0.051	0.001
22-Nov-95	29-Nov-95	7	360	11.2	5.68	-0.0003	-0.0016	0.029	0.063	0.003	0.004	0.000	0.003	0.003	0.061	0.004
29-Nov-95	6-Dec-95	7	208	6.5	5.81	0.0000	0.0003	0.008	0.010	0.000	0.001	0.000	0.002	0.000	0.001	0.000
6-Dec-95	13-Dec-95	7	30	0.9	6.92	-0.0001	0.0004	0.014	0.009	0.000	0.002	0.000	0.000	0.000	0.000	0.000
13-Dec-95	20-Dec-95	7	148	4.6	4.99	-0.0002	0.0004	0.012	0.056	0.000	0.005	0.000	0.003	0.002	0.013	0.001
27-Dec-95	3-Jan-96	7	280	8.7	5.57	0.0000	0.0000	0.012	0.033	0.002	0.003	0.000	0.002	0.001	0.015	0.001
Annual		**310**	**10374**	**324**	**4.89**	**0.0581**	**0.0747**	**2.953**	**2.167**	**0.638**	**0.224**	**0.011**	**0.148**	**0.169**	**0.854**	**0.123**

a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

CALGARY

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
13-Jan-95	18-Jan-95	5	51	1.6	6.05	0.0011	0.0019	0.048	0.040	0.024	0.028	0.000	0.017	0.001	0.017	0.003
1-Feb-95	8-Feb-95	7	69	2.2	5.99	0.0003	0.0001	0.013	0.019	0.007	0.008	0.000	0.005	0.000	0.014	0.002
2-Mar-95	8-Mar-95	6	234	7.3	6.22	0.0006	-0.0018	0.040	0.098	0.027	0.017	0.000	0.012	0.000	0.084	0.019
5-Apr-95	12-Apr-95	7	173	5.4	6.44	0.0025	0.0010	0.082	0.056	0.049	0.039	0.000	0.027	0.002	0.069	0.010
12-Apr-95	19-Apr-95	7	160	5.0	6.72	0.0019	-0.0005	0.073	0.085	0.044	0.005	0.000	0.005	0.000	0.091	0.016
19-Apr-95	3-May-95	14	651	20.3	6.78	0.0155	0.0145	0.732	0.407	0.315	0.017	0.000	0.014	0.010	0.386	0.065
3-May-95	10-May-95	7	924	28.8	5.42	0.0068	0.0081	0.302	0.188	0.123	0.009	0.000	0.008	0.005	0.129	0.018
10-May-95	26-May-95	16	1432	44.7	5.88	0.0123	0.0070	0.728	0.425	0.260	0.017	0.000	0.009	0.013	0.465	0.071
2-Jun-95	8-Jun-95	6	920	28.7	5.96	0.0050	0.0033	0.305	0.270	0.122	0.008	0.000	0.005	0.007	0.228	0.032
15-Jun-95	22-Jun-95	7	645	20.1	5.63	0.0024	0.0034	0.322	0.176	0.062	0.009	0.000	0.005	0.010	0.144	0.026
22-Jun-95	29-Jun-95	7	48	1.5	5.91	0.0002	0.0000	0.045	0.030	0.008	0.003	0.000	0.003	0.002	0.027	0.005
29-Jun-95	5-Jul-95	6	937	29.2	5.03	0.0036	0.0025	0.261	0.180	0.045	0.006	0.000	0.009	0.014	0.125	0.021
5-Jul-95	14-Jul-95	9	371	11.6	6.44	0.0025	0.0012	0.192	0.145	0.065	0.013	0.000	0.007	0.010	0.130	0.025
14-Jul-95	21-Jul-95	7	872	27.2	5.09	0.0049	0.0057	0.357	0.161	0.070	0.008	0.000	0.002	0.008	0.123	0.023
21-Jul-95	27-Jul-95	6	26	0.8	5	0.0001	-0.0001	0.022	0.013	0.002	0.001	0.000	0.001	0.001	0.013	0.003
27-Jul-95	2-Aug-95	6	277	8.6	6.16	0.0013	-0.0001	0.143	0.069	0.032	0.002	0.000	0.002	0.002	0.093	0.016
2-Aug-95	11-Aug-95	9	357	11.1	4.84	0.0037	0.0057	0.208	0.101	0.050	0.008	0.000	0.005	0.002	0.047	0.008
11-Aug-95	16-Aug-95	5	323	10.1	5.68	0.0011	0.0004	0.104	0.064	0.025	0.004	0.000	0.003	0.002	0.065	0.011
16-Aug-95	1-Sep-95	16	619	19.3	5.46	0.0010	0.0002	0.330	0.204	0.042	0.011	0.000	0.007	0.006	0.187	0.034
1-Sep-95	7-Sep-95	6	921	28.7	5	0.0081	0.0121	0.453	0.212	0.120	0.008	0.000	0.006	0.005	0.111	0.021
7-Sep-95	20-Sep-95	13	293	9.1	5.26	0.0031	0.0055	0.135	0.111	0.060	0.002	0.000	0.001	0.002	0.038	0.006
20-Sep-95	4-Oct-95	14	155	4.8	5.98	0.0009	0.0006	0.114	0.067	0.025	0.003	0.000	0.001	0.005	0.062	0.012
11-Oct-95	18-Oct-95	7	131	4.1	5.05	0.0005	0.0011	0.049	0.062	0.013	0.001	0.000	0.001	0.001	0.025	0.004
18-Oct-95	24-Oct-95	6	70	2.2	5.71	0.0002	0.0000	0.011	0.013	0.004	0.002	0.001	0.001	0.001	0.011	0.002
24-Oct-95	31-Oct-95	7	35	1.1	6.92	0.0000	-0.0008	0.008	0.023	0.003	0.003	0.000	0.001	0.000	0.023	0.004
31-Oct-95	8-Nov-95	8	249	7.8	6.17	0.0008	-0.0003	0.037	0.076	0.025	0.024	0.000	0.014	0.001	0.057	0.009
8-Nov-95	29-Nov-95	21	226	7.1	5.65	0.0002	0.0004	0.034	0.070	0.013	0.013	0.000	0.011	0.000	0.034	0.005
29-Nov-95	6-Dec-95	7	198	6.2	6.41	0.0002	-0.0018	0.015	0.023	0.006	0.014	0.000	0.010	0.001	0.042	0.008
6-Dec-95	13-Dec-95	7	232	7.2	6.15	0.0003	-0.0006	0.028	0.047	0.013	0.013	0.000	0.008	0.002	0.041	0.007
13-Dec-95	21-Dec-95	8	324	10.1	6.48	-0.0001	-0.0028	0.069	0.038	0.005	0.016	0.000	0.013	0.006	0.076	0.014
21-Dec-95	4-Jan-96	14	351	11.0	5.81	0.0002	0.0005	0.029	0.076	0.013	0.011	0.000	0.010	0.002	0.032	0.005
Annual		**271**	**12274**	**383**	**5.42**	**0.0810**	**0.0663**	**5.292**	**3.547**	**1.671**	**0.325**	**0.001**	**0.223**	**0.123**	**2.989**	**0.503**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

COLD LAKE

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
25-Jan-95	2-Feb-95	8	143	4.5	4.77	0.0012	0.0027	0.050	0.079	0.020	0.017	0.002	0.011	0.004	0.009	0.002
22-Feb-95	1-Mar-95	7	232	7.2	4.75	0.0022	0.0033	0.041	0.108	0.034	0.029	0.003	0.005	0.007	0.012	0.004
8-Mar-95	21-Mar-95	13	503	15.7	4.99	0.0030	0.0042	0.110	0.111	0.041	0.005	0.000	0.004	0.004	0.030	0.007
21-Mar-95	5-Apr-95	15	581	18.1	5.64	0.0022	0.0008	0.055	0.080	0.043	0.002	0.000	0.003	0.002	0.060	0.012
5-Apr-95	18-Apr-95	13	128	4.0	5.92	0.0015	0.0017	0.052	0.049	0.032	0.006	0.000	0.003	0.004	0.026	0.006
17-May-95	24-May-95	7	75	2.3	5.9	0.0010	0.0010	0.051	0.040	0.023	0.006	0.000	0.003	0.004	0.027	0.006
31-May-95	7-Jun-95	7	119	3.7	6.91	0.0035	0.0022	0.067	0.078	0.069	0.006	0.000	0.003	0.009	0.065	0.010
14-Jun-95	21-Jun-95	7	556	17.3	5.59	0.0021	0.0020	0.151	0.235	0.068	0.014	0.000	0.011	0.006	0.137	0.022
21-Jun-95	28-Jun-95	7	234	7.3	5.83	0.0011	0.0008	0.075	0.069	0.027	0.003	0.000	0.003	0.002	0.050	0.009
28-Jun-95	5-Jul-95	7	119	3.7	5.02	0.0016	0.0021	0.082	0.052	0.029	0.002	0.000	0.002	0.002	0.029	0.006
5-Jul-95	12-Jul-95	7	197	6.1	5.09	0.0007	0.0005	0.041	0.044	0.011	0.002	0.000	0.003	0.002	0.025	0.005
12-Jul-95	19-Jul-95	7	160	5.0	5.35	0.0002	-0.0002	0.006	0.003	0.000	0.001	0.000	0.000	0.000	0.005	0.001
19-Jul-95	26-Jul-95	7	301	9.4	5.57	c	c	c	c	c	c	c	c	c	c	c
26-Jul-95	2-Aug-95	7	899	28.1	5.26	0.0032	0.0035	0.130	0.095	0.042	0.006	0.000	0.003	0.004	0.047	0.008
2-Aug-95	9-Aug-95	7	1428	44.6	6.41	c	c	c	c	c	c	c	c	c	c	c
9-Aug-95	16-Aug-95	7	298	9.3	5.24	0.0004	0.0003	0.016	0.017	0.001	0.002	0.000	0.001	0.001	0.006	0.001
16-Aug-95	23-Aug-95	7	824	25.7	5.46	0.0043	0.0058	0.181	0.184	0.086	0.008	0.000	0.003	0.014	0.079	0.018
23-Aug-95	30-Aug-95	7	765	23.9	5.14	0.0042	0.0065	0.187	0.163	0.068	0.006	0.000	0.005	0.005	0.056	0.011
27-Sep-95	12-Oct-95	15	53	1.7	4.73	0.0005	0.0010	0.030	0.025	0.007	0.001	0.001	0.001	0.002	0.007	0.001
12-Oct-95	18-Oct-95	6	350	10.9	4.92	0.0031	0.0059	0.120	0.131	0.051	0.004	0.000	0.003	0.003	0.023	0.004
18-Oct-95	25-Oct-95	7	5	0.2	a	a	a	a	a	a	a	a	a	a	a	a
25-Oct-95	8-Nov-95	14	166	5.2	5.53	0.0004	0.0005	0.017	0.038	0.011	0.002	0.000	0.001	0.002	0.017	0.003
8-Nov-95	27-Nov-95	19	185	5.8	4.99	0.0004	0.0008	0.025	0.044	0.004	0.003	0.000	0.002	0.001	0.011	0.001
6-Dec-95	8-Jan-96	33	225	7.0	4.82	0.0003	0.0016	0.036	0.112	0.007	0.005	0.003	0.002	0.004	0.022	0.002
Annual		**241**	**8546**	**267**	**5.33**	**0.0371**	**0.0470**	**1.523**	**1.756**	**0.675**	**0.132**	**0.009**	**0.072**	**0.080**	**0.742**	**0.138**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

DRAYTON VALLEY

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
10-Jan-95	17-Jan-95	7	76	2.4	6.23	0.0011	0.0021	0.030	0.068	0.030	0.005	0.000	0.003	0.003	0.019	0.002
14-Feb-95	21-Feb-95	7	140	4.4	5.22	0.0004	0.0022	0.035	0.112	0.023	0.010	0.000	0.009	0.007	0.022	0.004
21-Feb-95	28-Mar-95	35	38	1.2	6.4	0.0003	0.0001	0.009	0.008	0.007	0.002	0.000	0.001	0.001	0.010	0.001
29-Mar-95	5-Apr-95	7	327	10.2	6.14	0.0058	0.0067	0.152	0.159	0.118	0.011	0.000	0.014	0.010	0.083	0.014
9-May-95	17-May-95	8	570	17.8	7.1	0.0222	0.0223	0.672	0.423	0.423	0.021	0.000	0.019	0.067	0.307	0.059
17-May-95	24-May-95	7	1025	32.0	4.95	0.0076	0.0101	0.463	0.264	0.110	0.010	0.000	0.008	0.021	0.149	0.024
24-May-95	7-Jun-95	14	1659	51.8	4.92	0.0127	0.0165	0.754	0.427	0.178	0.018	0.000	0.021	0.034	0.238	0.039
13-Jun-95	28-Jun-95	15	885	27.6	5.8	0.0041	0.0042	0.704	0.397	0.128	0.056	0.000	0.034	0.053	0.347	0.064
28-Jun-95	5-Jul-95	7	1491	46.5	4.94	0.0094	0.0119	0.486	0.282	0.113	0.018	0.000	0.009	0.013	0.137	0.023
5-Jul-95	12-Jul-95	7	655	20.4	5.17	0.0020	0.0002	0.216	0.121	0.031	0.013	0.000	0.013	0.009	0.117	0.023
12-Jul-95	19-Jul-95	7	339	10.6	6.05	-0.0002	-0.0042	0.092	0.043	0.002	0.004	0.000	0.001	0.004	0.106	0.018
19-Jul-95	26-Jul-95	7	425	13.3	4.7	0.0025	0.0023	0.117	0.037	0.005	0.004	0.000	0.003	0.005	0.013	0.003
26-Jul-95	2-Aug-95	7	637	19.9	4.94	0.0024	0.0026	0.127	0.082	0.017	0.005	0.000	0.001	0.005	0.034	0.006
2-Aug-95	9-Aug-95	7	1984	61.9	4.85	0.0128	0.0161	0.511	0.182	0.097	0.008	0.000	0.002	0.006	0.043	0.007
9-Aug-95	16-Aug-95	7	552	17.2	6.13	0.0053	0.0015	0.205	0.114	0.101	0.009	0.016	0.006	0.030	0.118	0.043
16-Aug-95	23-Aug-95	7	682	21.3	5.13	0.0067	0.0102	0.300	0.184	0.113	0.014	0.000	0.006	0.006	0.078	0.016
23-Aug-95	30-Aug-95	7	490	15.3	4.8	0.0035	0.0048	0.260	0.119	0.037	0.007	0.000	0.005	0.005	0.067	0.014
13-Sep-95	19-Sep-95	6	265	8.3	5.6	c	c	c	c	c	c	c	c	c	c	c
10-Oct-95	18-Oct-95	8	455	14.2	5.69	-0.0001	-0.0223	0.140	0.038	0.000	0.112	0.032	0.002	0.668	0.150	0.016
25-Oct-95	1-Nov-95	7	99	3.1	5.91	0.0004	0.0000	0.011	0.012	0.007	0.001	0.000	0.000	0.003	0.011	0.002
1-Nov-95	7-Nov-95	6	55	1.7	6.31	0.0003	-0.0002	0.007	0.013	0.006	0.005	0.002	0.003	0.004	0.013	0.002
7-Nov-95	14-Nov-95	7	260	8.1	5.72	0.0005	-0.0002	0.022	0.042	0.014	0.011	0.000	0.006	0.003	0.031	0.006
21-Nov-95	28-Nov-95	7	321	10.0	4.9	0.0013	0.0036	0.063	0.161	0.029	0.004	0.000	0.003	0.005	0.031	0.003
28-Nov-95	6-Dec-95	8	184	5.7	4.84	-0.0001	0.0017	0.019	0.085	0.000	0.007	0.000	0.002	0.001	0.001	0.000
6-Dec-95	13-Dec-95	7	64	2.0	6.18	0.0002	0.0000	0.010	0.013	0.005	0.002	0.001	0.001	0.005	0.010	0.001
Annual		**219**	**13678**	**427**	**5.05**	**0.1012**	**0.0921**	**5.407**	**3.387**	**1.593**	**0.356**	**0.051**	**0.174**	**0.967**	**2.136**	**0.390**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

FORT CHIPEWYAN

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
1-Jan-95	31-Jan-95	30	388	12.1	5.13	0.0001	-0.0005	0.049	0.073	0.000	0.017	0.000	0.015	0.006	0.039	0.008
14-Jun-95	19-Jul-95	35	1965	61.3	5.77	0.0125	0.0135	0.245	0.254	0.225	0.072	0.000	0.053	0.055	0.114	0.013
19-Jul-95	9-Aug-95	21	1416	44.2	5.6	0.0099	0.0104	0.199	0.190	0.171	0.037	0.000	0.024	0.033	0.093	0.010
9-Aug-95	23-Aug-95	14	2089	65.2	5.17	0.0037	0.0028	0.142	0.092	0.006	0.020	0.000	0.008	0.008	0.028	0.005
29-Aug-95	29-Sep-95	31	844	26.3	4.99	0.0027	0.0001	0.154	0.000	0.001	0.049	0.000	0.029	0.012	0.053	0.003
Annual		**131**	**6702**	**209**	**5.31**	**0.0290**	**0.0263**	**0.789**	**0.608**	**0.403**	**0.195**	**0.000**	**0.130**	**0.114**	**0.327**	**0.038**

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a insufficient sample for analysis   b data not available   c sample contaminated with dirt, plant or insect material   d catch of collector not available
e less than 75% of data available   * precipitation depth calculated from catch of collector

FORT MCMURRAY

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
5-Jan-95	23-Jan-95	18	100	3.1	4.68	0.0004	0.0007	0.021	0.033	0.002	0.008	0.000	0.005	0.001	0.004	0.001
31-Jan-95	6-Feb-95	6	20	0.6	4.8	0.0002	0.0004	0.012	0.011	0.003	0.004	0.000	0.003	0.002	0.003	0.001
6-Feb-95	1-Mar-95	23	176	5.5	4.88	0.0004	0.0005	0.038	0.040	0.002	0.013	0.000	0.009	0.001	0.015	0.003
7-Mar-95	22-Mar-95	15	418	13.0	4.89	0.0028	0.0040	0.104	0.095	0.034	0.004	0.000	0.004	0.002	0.023	0.005
22-Mar-95	28-Mar-95	6	66	2.1	4.75	0.0008	0.0014	0.049	0.028	0.012	0.005	0.000	0.004	0.001	0.010	0.003
27-Mar-95	4-Apr-95	8	142	4.4	4.48	0.0021	0.0045	0.134	0.111	0.030	0.017	0.000	0.014	0.014	0.019	0.005
4-Apr-95	11-Apr-95	7	35	1.1	5.75	0.0001	0.0002	0.020	0.014	0.004	0.006	0.000	0.005	0.007	0.007	0.002
11-Apr-95	18-Apr-95	7	321	10.0	4.63	0.0044	0.0062	0.245	0.102	0.051	0.010	0.000	0.006	0.003	0.049	0.010
18-Apr-95	26-Apr-95	8	16	0.5	5.91	0.0001	0.0000	0.013	0.008	0.003	0.003	0.000	0.002	0.001	0.007	0.002
16-May-95	23-May-95	7	142	4.4	4.36	0.0024	0.0038	0.268	0.063	0.019	0.008	0.000	0.006	0.005	0.050	0.015
23-May-95	1-Jun-95	9	102	3.2	4.4	0.0012	0.0012	0.100	0.013	0.001	0.005	0.000	0.003	0.003	0.015	0.004
1-Jun-95	5-Jun-95	4	19	0.6	5.92	-0.0004	0.0001	0.000	0.040	0.000	0.004	0.003	0.002	0.000	0.000	0.007
13-Jun-95	21-Jun-95	8	3023	94.3	4.87	0.0174	0.0247	0.910	0.555	0.172	0.026	0.000	0.021	0.014	0.197	0.031
21-Jun-95	28-Jun-95	7	523	16.3	5.56	0.0012	0.0001	0.144	0.100	0.029	0.007	0.000	0.003	0.005	0.095	0.016
28-Jun-95	4-Jul-95	6	3	0.1	a	a	a	a	a	a	a	a	a	a	a	a
4-Jul-95	12-Jul-95	8	115	3.6	4.66	0.0018	0.0026	0.098	0.037	0.023	0.004	0.000	0.002	0.002	0.018	0.004
12-Jul-95	18-Jul-95	6	152	4.7	4.68	0.0016	0.0020	0.101	0.021	0.014	0.003	0.000	0.002	0.002	0.016	0.004
18-Jul-95	25-Jul-95	7	397	12.4	5.81	0.0043	0.0041	0.211	0.038	0.072	0.008	0.000	0.005	0.005	0.066	0.017
25-Jul-95	1-Aug-95	7	683	21.3	5.01	0.0020	0.0016	0.097	0.035	0.005	0.006	0.000	0.002	0.002	0.017	0.004
1-Aug-95	8-Aug-95	7	466	14.5	4.68	0.0038	0.0039	0.182	0.038	0.018	0.005	0.000	0.002	0.002	0.022	0.005
8-Aug-95	15-Aug-95	7	2658	82.9	4.61	0.0212	0.0212	0.985	0.089	0.028	0.010	0.000	0.006	0.007	0.032	0.007
15-Aug-95	22-Aug-95	7	501	15.6	4.63	0.0034	0.0037	0.187	0.039	0.003	0.003	0.000	0.004	0.003	0.012	0.004
22-Aug-95	29-Aug-95	7	735	22.9	4.91	0.0042	0.0061	0.199	0.144	0.048	0.006	0.000	0.003	0.005	0.044	0.009
29-Aug-95	5-Sep-95	7	11	0.3	5.43	0.0000	0.0001	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Sep-95	19-Sep-95	14	236	7.4	4.94	0.0009	0.0006	0.072	0.020	0.005	0.004	0.000	0.002	0.001	0.020	0.005
26-Sep-95	11-Oct-95	15	340	10.6	5.5	0.0022	0.0027	0.104	0.053	0.038	0.004	0.000	0.009	0.003	0.036	0.007
11-Oct-95	16-Oct-95	5	395	12.3	4.93	0.0019	0.0018	0.066	0.023	0.011	0.002	0.000	0.004	0.002	0.006	0.001
16-Oct-95	24-Oct-95	8	22	0.7	5.59	0.0003	0.0005	0.016	0.008	0.007	0.003	0.000	0.002	0.003	0.003	0.001
24-Oct-95	30-Oct-95	6	322	10.0	5.07	0.0015	0.0021	0.065	0.041	0.017	0.004	0.000	0.002	0.003	0.012	0.002
4-Dec-95	13-Dec-95	9	40	1.2	5.84	0.0000	-0.0002	0.003	0.001	0.000	0.002	0.000	0.001	0.000	0.005	0.001
13-Dec-95	19-Dec-95	6	95	3.0	4.69	c	c	c	c	c	c	c	c	c	c	c
19-Dec-95	2-Jan-96	14	126	3.9	5.04	0.0002	0.0008	0.022	0.032	0.003	0.012	0.000	0.003	0.001	0.006	0.001
Annual		**314**	**12810**	**400**	**4.80**	**0.0835**	**0.1040**	**4.534**	**1.949**	**0.671**	**0.206**	**0.003**	**0.141**	**0.103**	**0.834**	**0.180**

a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

FORT VERMILION

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
10-May-95	18-May-95	8	180	5.6	6.65	0.0003	-0.0026	0.048	0.027	0.009	0.034	0.000	0.030	0.028	0.066	0.007
31-May-95	7-Jun-95	7	7	0.2	4.83	a	a	a	a	a	a	a	a	a	a	a
7-Jun-95	14-Jun-95	7	34	1.1	6.12	-0.0001	-0.0006	0.011	0.008	0.000	0.001	0.000	0.000	0.003	0.013	0.002
14-Jun-95	21-Jun-95	7	454	14.2	6.22	0.0019	0.0016	0.045	0.067	0.040	0.004	0.000	0.002	0.003	0.044	0.004
21-Jun-95	28-Jun-95	7	483	15.1	5.91	0.0005	-0.0029	0.076	0.067	0.017	0.005	0.000	0.003	0.004	0.111	0.011
5-Jul-95	12-Jul-95	7	718	22.4	5.1	0.0015	-0.0007	0.104	0.105	0.013	0.004	0.000	0.000	0.006	0.088	0.009
12-Jul-95	19-Jul-95	7	81	2.5	6.64	0.0019	0.0015	0.020	0.019	0.033	0.001	0.000	0.001	0.004	0.017	0.002
19-Jul-95	26-Jul-95	7	730	22.8	5.75	0.0027	0.0005	0.040	0.043	0.043	0.008	0.000	0.003	0.009	0.054	0.005
26-Jul-95	2-Aug-95	7	637	19.9	5.31	0.0011	-0.0003	0.035	0.000	0.001	0.002	0.000	0.001	0.002	0.016	0.003
16-Aug-95	23-Aug-95	7	867	27.1	5.63	0.0035	0.0030	0.064	0.082	0.059	0.009	0.000	0.001	0.004	0.046	0.006
27-Sep-95	4-Oct-95	7	127	4.0	6.18	-0.0001	-0.0017	0.025	0.011	0.001	0.002	0.000	0.002	0.002	0.038	0.006
4-Oct-95	11-Oct-95	7	155	4.8	5.72	0.0003	-0.0005	0.018	0.010	0.005	0.001	0.000	0.000	0.001	0.022	0.002
1-Nov-95	8-Nov-95	7	165	5.1	5.71	0.0000	-0.0007	0.012	0.011	0.000	0.004	0.000	0.002	0.004	0.018	0.001
22-Nov-95	29-Nov-95	7	44	1.4	6.51	0.0003	0.0003	0.013	0.029	0.010	0.007	0.000	0.005	0.003	0.017	0.002
Annual		**99**	**4682**	**146**	**5.53**	**0.0137**	**-0.0031**	**0.512**	**0.477**	**0.232**	**0.082**	**0.000**	**0.050**	**0.072**	**0.550**	**0.061**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

HIGH PRAIRIE (DAILY)

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
4-Jan-95	5-Jan-95	1	1320	41.2	4.67	0.0015	0.0074	0.101	0.661	0.003	0.017	0.000	0.020	0.010	0.082	0.015
12-Jan-95	13-Jan-95	1	152	4.7	5.13	0.0001	-0.0001	0.017	0.025	0.000	0.011	0.000	0.021	0.001	0.013	0.002
13-Jan-95	14-Jan-95	1	21	0.7	4.8	0.0000	0.0001	0.003	0.007	0.000	0.001	0.000	0.002	0.000	0.002	0.000
15-Jan-95	16-Jan-95	1	31	1.0	4.86	0.0000	0.0001	0.005	0.010	0.000	0.002	0.000	0.005	0.000	0.002	0.000
16-Jan-95	17-Jan-95	1	23	0.7	5.07	0.0000	0.0000	0.003	0.004	0.000	0.002	0.000	0.005	0.000	0.002	0.000
22-Jan-95	23-Jan-95	1	60	1.9	4.88	0.0001	0.0001	0.006	0.017	0.000	0.002	0.000	0.003	0.001	0.005	0.001
23-Jan-95	24-Jan-95	1	97	3.0	4.53	0.0003	0.0007	0.021	0.054	0.000	0.005	0.000	0.008	0.001	0.009	0.002
30-Jan-95	31-Jan-95	1	18	0.6	4.55	0.0000	0.0001	0.004	0.010	0.000	0.001	0.000	0.002	0.000	0.002	0.000
10-Feb-95	11-Feb-95	1	338	10.5	5.131	0.0004	-0.0004	0.017	0.042	0.001	0.005	0.000	0.005	0.001	0.024	0.004
23-Feb-95	24-Feb-95	1	239	7.5	4.93	0.0005	0.0010	0.050	0.079	0.008	0.008	0.000	0.011	0.005	0.027	0.004
12-Mar-95	13-Mar-95	1	156	4.9	4.34	0.0011	0.0025	0.043	0.127	0.006	0.006	0.005	0.004	0.001	0.011	0.002
21-Mar-95	22-Mar-95	1	100	3.1	6.49	0.0016	0.0027	0.076	0.125	0.048	0.003	0.000	0.003	0.002	0.057	0.008
22-Mar-95	23-Mar-95	1	178	5.6	4.72	0.0016	0.0031	0.089	0.099	0.026	0.005	0.006	0.005	0.002	0.027	0.005
4-Apr-95	5-Apr-95	1	251	7.8	6.78	c	c	c	c	c	c	c	c	c	c	c
21-Apr-95	22-Apr-95	1	823	25.7	5.11	0.0087	0.0147	0.473	0.319	0.161	0.010	0.000	0.008	0.010	0.144	0.021
15-May-95	16-May-95	1	19	0.6	a	a	a	a	a	a	a	a	a	a	a	a
16-May-95	17-May-95	1	3	0.1	a	a	a	a	a	a	a	a	a	a	a	a
17-May-95	18-May-95	1	384	12.0	4.8	0.0020	0.0005	0.137	0.000	0.001	0.014	0.000	0.005	0.011	0.035	0.005
22-May-95	23-May-95	1	544	17.0	4.74	c	c	c	c	c	c	c	c	c	c	c
18-Aug-95	19-Aug-95	1	254	7.9	5.11	0.0006	-0.0001	0.037	0.000	0.000	0.003	0.000	0.003	0.004	0.013	0.002
22-Aug-95	23-Aug-95	1	532	16.6	6.14	0.0005	-0.0076	0.092	0.009	0.008	0.060	0.000	0.006	0.113	0.109	0.021
31-Aug-95	1-Sep-95	1	939	29.3	5.12	c	c	c	c	c	c	c	c	c	c	c
1-Sep-95	2-Sep-95	1	a	a	a	a	a	a	a	a	a	a	a	a	a	a
4-Sep-95	5-Sep-95	1	180	5.6	5.11	0.0006	0.0005	0.027	0.014	0.006	0.002	0.000	0.001	0.002	0.010	0.001
14-Sep-95	15-Sep-95	1	118	3.7	6.6	0.0012	-0.0002	0.072	0.039	0.025	0.004	0.003	0.001	0.007	0.056	0.009
20-Sep-95	21-Sep-95	1	25	0.8	5.05	0.0001	0.0001	0.004	0.002	0.001	0.001	0.000	0.000	0.001	0.001	0.000
Annual		**32**	**7408**	**231**	**4.98**	**0.0237**	**0.0263**	**1.422**	**1.718**	**0.331**	**0.174**	**0.018**	**0.121**	**0.185**	**0.712**	**0.111**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

HIGH PRAIRIE (WEEKLY)

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
11-Jan-95	1-Feb-95	21	198	6.2	5	0.0006	0.0014	0.054	0.097	0.018	0.010	0.000	0.009	0.006	0.031	0.006
7-Feb-95	1-Mar-95	22	146	4.6	4.85	0.0004	0.0008	0.027	0.062	0.006	0.006	0.000	0.005	0.003	0.017	0.003
7-Mar-95	4-Apr-95	28	195	6.1	4.81	0.0007	0.0011	0.050	0.057	0.007	0.004	0.000	0.003	0.003	0.018	0.003
10-May-95	24-May-95	14	322	10.0	4.81	0.0014	0.0012	0.108	0.057	0.007	0.010	0.000	0.011	0.013	0.033	0.005
1-Jul-95	14-Jul-95	13	94	2.9	5.29	0.0003	0.0003	0.014	0.007	0.004	0.001	0.000	0.000	0.001	0.005	0.001
14-Jul-95	31-Jul-95	17	956	29.8	5.41	c	c	c	c	c	c	c	c	c	c	c
15-Aug-95	31-Aug-95	16	321	10.0	5.32	0.0011	0.0010	0.048	0.025	0.014	0.004	0.000	0.001	0.004	0.018	0.002
1-Sep-95	14-Sep-95	13	345	10.8	5.26	0.0012	0.0011	0.051	0.026	0.014	0.004	0.000	0.001	0.004	0.018	0.002
1-Sep-95	30-Sep-95	29	635	19.8	5.22	c	c	c	c	c	c	c	c	c	c	c
Annual		**202**	**3847**	**120**	**5.15**	**0.0057**	**0.0069**	**0.353**	**0.331**	**0.071**	**0.037**	**0.000**	**0.030**	**0.033**	**0.141**	**0.022**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

KANANASKIS

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
1-Feb-95	8-Feb-95	7	484	15.1	5.65	0.0005	-0.0008	0.042	0.084	0.018	0.005	0.000	0.006	0.002	0.065	0.009
8-Feb-95	15-Feb-95	7	24	0.7	5.24	0.0002	0.0002	0.005	0.008	0.003	0.000	0.000	0.000	0.000	0.003	0.001
15-Feb-95	15-Mar-95	28	471	14.7	5.8	0.0008	-0.0030	0.031	0.051	0.018	0.002	0.000	0.003	0.001	0.082	0.016
15-Mar-95	29-Mar-95	14	116	3.6	6.05	0.0020	0.0026	0.115	0.065	0.043	0.004	0.000	0.002	0.002	0.050	0.009
29-Mar-95	5-Apr-95	7	103	3.2	6.28	0.0005	-0.0017	0.008	0.007	0.008	0.001	0.000	0.001	0.001	0.036	0.008
5-Apr-95	12-Apr-95	7	198	6.2	5.55	0.0005	0.0000	0.032	0.038	0.013	0.004	0.000	0.003	0.000	0.031	0.005
12-Apr-95	19-Apr-95	7	1174	36.6	5.59	0.0009	-0.0055	0.072	0.093	0.015	0.000	0.000	0.004	0.000	0.148	0.023
19-Apr-95	3-May-95	14	1589	49.6	4.88	0.0160	0.0280	0.816	0.489	0.235	0.014	0.000	0.008	0.005	0.154	0.025
3-May-95	10-May-95	7	1877	58.6	4.86	0.0165	0.0303	0.830	0.495	0.220	0.015	0.000	0.010	0.006	0.106	0.021
10-May-95	17-May-95	7	1343	41.9	5.52	0.0090	0.0069	0.555	0.331	0.181	0.012	0.000	0.010	0.009	0.319	0.047
17-May-95	24-May-95	7	458	14.3	4.66	0.0035	0.0052	0.246	0.126	0.028	0.007	0.000	0.004	0.004	0.052	0.009
24-May-95	31-May-95	7	815	25.4	4.92	0.0038	0.0040	0.224	0.115	0.032	0.006	0.000	0.004	0.003	0.064	0.012
31-May-95	7-Jun-95	7	2755	86.0	5.9	0.0096	0.0046	0.569	0.517	0.225	0.013	0.000	0.015	0.028	0.450	0.059
14-Jun-95	21-Jun-95	7	1521	47.5	4.89	0.0071	0.0099	0.483	0.249	0.059	0.013	0.000	0.009	0.009	0.117	0.017
21-Jun-95	28-Jun-95	7	926	28.9	4.95	0.0057	0.0038	0.685	0.214	0.076	0.006	0.000	0.004	0.023	0.237	0.070
28-Jun-95	5-Jul-95	7	1370	42.7	5.01	0.0027	0.0022	0.256	0.185	0.009	0.006	0.000	0.013	0.019	0.091	0.019
5-Jul-95	12-Jul-95	7	105	3.3	5.11	0.0010	0.0016	0.079	0.065	0.023	0.004	0.000	0.001	0.006	0.032	0.007
12-Jul-95	19-Jul-95	7	108	3.4	6.65	c	c	c	c	c	c	c	c	c	c	c
19-Jul-95	2-Aug-95	14	904	28.2	5.3	0.0016	-0.0006	0.168	0.082	0.018	0.008	0.000	0.005	0.005	0.093	0.019
2-Aug-95	9-Aug-95	7	801	25.0	5.05	0.0034	0.0030	0.223	0.080	0.032	0.006	0.000	0.002	0.004	0.071	0.012
9-Aug-95	16-Aug-95	7	177	5.5	5.39	0.0004	0.0002	0.021	0.022	0.007	0.002	0.000	0.000	0.001	0.013	0.003
16-Aug-95	23-Aug-95	7	35	1.1	5.45	0.0002	0.0002	0.007	0.014	0.005	0.001	0.000	0.000	0.001	0.006	0.001
23-Aug-95	30-Aug-95	7	201	6.3	5.27	0.0004	0.0006	0.052	0.062	0.012	0.004	0.000	0.005	0.003	0.032	0.006
30-Aug-95	6-Sep-95	7	2831	88.3	5.13	0.0138	0.0158	0.712	0.338	0.174	0.010	0.000	0.021	0.011	0.220	0.035
6-Sep-95	13-Sep-95	7	131	4.1	5.3	0.0004	0.0003	0.018	0.006	0.005	0.001	0.000	0.000	0.002	0.005	0.001
13-Sep-95	20-Sep-95	7	371	11.6	4.78	0.0028	0.0047	0.151	0.119	0.034	0.003	0.000	0.002	0.005	0.034	0.005
20-Sep-95	4-Oct-95	14	920	28.7	5.11	0.0027	0.0027	0.149	0.070	0.020	0.005	0.000	0.002	0.001	0.041	0.006
4-Oct-95	11-Oct-95	7	53	1.7	6.42	0.0008	0.0006	0.010	0.009	0.014	0.001	0.000	0.000	0.002	0.007	0.001
11-Oct-95	18-Oct-95	7	483	15.1	4.93	0.0015	0.0020	0.076	0.071	0.008	0.005	0.000	0.002	0.001	0.020	0.002
18-Oct-95	1-Nov-95	14	132	4.1	5.74	0.0001	-0.0002	0.018	0.037	0.007	0.002	0.000	0.001	0.001	0.024	0.004
1-Nov-95	8-Nov-95	7	69	2.2	5.08	0.0005	0.0009	0.019	0.025	0.009	0.002	0.000	0.001	0.001	0.006	0.001
8-Nov-95	15-Nov-95	7	295	9.2	5.36	0.0003	0.0002	0.019	0.042	0.007	0.002	0.000	0.001	0.001	0.022	0.002
15-Nov-95	29-Nov-95	14	156	4.9	5.94	0.0003	0.0002	0.004	0.014	0.006	0.001	0.000	0.003	0.004	0.006	0.001
29-Nov-95	6-Dec-95	7	654	20.4	5.83	0.0004	-0.0013	0.020	0.034	0.007	0.003	0.000	0.010	0.008	0.042	0.005
6-Dec-95	13-Dec-95	7	210	6.6	5.25	0.0000	0.0007	0.007	0.049	0.003	0.001	0.000	0.002	0.001	0.006	0.001
13-Dec-95	10-Jan-96	28	652	20.3	5.15	0.0006	0.0013	0.034	0.113	0.007	0.009	0.000	0.002	0.002	0.027	0.003
Annual		**336**	**24512**	**765**	**5.12**	**0.1105**	**0.1196**	**6.755**	**4.318**	**1.581**	**0.177**	**0.000**	**0.156**	**0.174**	**2.713**	**0.468**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

RED DEER

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
5-Jan-95	11-Jan-95	6	16	0.5	6.14	0.0001	0.0001	0.003	0.005	0.003	0.000	0.000	0.000	0.001	0.003	0.000
11-Jan-95	18-Jan-95	7	104	3.2	5.23	0.0004	0.0011	0.031	0.052	0.013	0.004	0.000	0.003	0.003	0.016	0.003
15-Feb-95	22-Feb-95	7	36	1.1	5.76	0.0008	0.0012	0.026	0.021	0.016	0.001	0.001	0.001	0.001	0.007	0.001
22-Feb-95	1-Mar-95	7	49	1.5	5.95	0.0007	0.0010	0.028	0.026	0.015	0.003	0.000	0.002	0.001	0.012	0.002
1-Mar-95	8-Mar-95	7	171	5.3	5.31	0.0003	0.0005	0.038	0.082	0.015	0.005	0.000	0.003	0.002	0.036	0.008
30-Mar-95	12-Apr-95	13	376	11.7	6.14	0.0044	0.0026	0.137	0.107	0.087	0.013	0.000	0.011	0.003	0.105	0.018
27-Apr-95	4-May-95	7	294	9.2	6.74	0.0085	0.0099	0.270	0.160	0.161	0.006	0.000	0.004	0.004	0.114	0.018
4-May-95	11-May-95	7	445	13.9	6.77	0.0094	0.0087	0.209	0.164	0.176	0.005	0.000	0.005	0.003	0.131	0.018
11-May-95	2-Jun-95	22	891	27.8	5.92	0.0070	0.0049	0.459	0.340	0.165	0.013	0.000	0.011	0.010	0.308	0.045
2-Jun-95	8-Jun-95	6	1412	44.1	5.57	0.0122	0.0137	0.634	0.535	0.267	0.016	0.000	0.015	0.027	0.365	0.049
15-Jun-95	21-Jun-95	6	887	27.7	5.94	c	c	c	c	c	c	c	c	c	c	c
21-Jun-95	29-Jun-95	8	136	4.2	5.47	0.0009	0.0012	0.041	0.029	0.018	0.001	0.000	0.000	0.001	0.016	0.003
29-Jun-95	5-Jul-95	6	1010	31.5	5.98	0.0063	0.0092	0.303	0.220	0.132	0.005	0.000	0.005	0.004	0.126	0.020
5-Jul-95	19-Jul-95	14	1099	34.3	5.91	0.0065	0.0114	0.450	0.316	0.151	0.011	0.000	0.007	0.011	0.176	0.029
19-Jul-95	26-Jul-95	7	144	4.5	5.95	0.0021	0.0029	0.050	0.024	0.036	0.002	0.000	0.002	0.004	0.007	0.001
26-Jul-95	2-Aug-95	7	111	3.5	6.44	0.0034	0.0051	0.114	0.064	0.065	0.004	0.000	0.001	0.007	0.024	0.006
2-Aug-95	9-Aug-95	7	781	24.4	5.64	0.0073	0.0106	0.405	0.246	0.149	0.009	0.000	0.002	0.007	0.154	0.027
9-Aug-95	24-Aug-95	15	1710	53.4	5.04	0.0173	0.0287	0.777	0.518	0.286	0.019	0.000	0.006	0.013	0.182	0.028
24-Aug-95	30-Aug-95	6	189	5.9	5.56	0.0031	0.0050	0.122	0.078	0.059	0.002	0.000	0.001	0.003	0.031	0.005
13-Sep-95	26-Sep-95	13	319	10.0	6.32	0.0074	0.0099	0.207	0.103	0.133	0.004	0.000	0.004	0.007	0.051	0.008
26-Sep-95	4-Oct-95	8	210	6.6	6.59	0.0057	0.0075	0.189	0.104	0.107	0.003	0.006	0.002	0.004	0.059	0.012
4-Oct-95	11-Oct-95	7	99	3.1	6.88	0.0023	0.0021	0.081	0.057	0.047	0.002	0.002	0.002	0.003	0.045	0.009
11-Oct-95	18-Oct-95	7	179	5.6	6.35	0.0016	0.0007	0.042	0.022	0.029	0.001	0.001	0.000	0.001	0.034	0.005
25-Oct-95	8-Nov-95	14	383	12.0	6.19	0.0028	0.0016	0.064	0.086	0.058	0.002	0.008	0.002	0.010	0.065	0.010
8-Nov-95	15-Nov-95	7	60	1.9	5.91	0.0001	-0.0001	0.009	0.012	0.004	0.001	0.000	0.000	0.000	0.011	0.002
15-Nov-95	29-Nov-95	14	201	6.3	5.06	0.0006	0.0025	0.041	0.118	0.022	0.003	0.000	0.003	0.004	0.022	0.003
29-Nov-95	7-Dec-95	8	132	4.1	5.56	0.0001	0.0002	0.007	0.018	0.003	0.001	0.000	0.002	0.002	0.007	0.001
7-Dec-95	13-Dec-95	6	294	9.2	5.74	0.0001	-0.0002	0.013	0.019	0.003	0.002	0.000	0.003	0.002	0.015	0.002
20-Dec-95	3-Jan-96	14	265	8.3	5.85	0.0007	0.0012	0.030	0.050	0.019	0.004	0.000	0.002	0.002	0.020	0.003
Annual		**263**	**12003**	**375**	**5.57**	**0.1120**	**0.1431**	**4.780**	**3.577**	**2.236**	**0.142**	**0.018**	**0.100**	**0.141**	**2.144**	**0.335**

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a insufficient sample for analysis b data not available c sample contaminated with dirt, plant or insect material d catch of collector not available
e less than 75% of data available * precipitation depth calculated from catch of collector

VEGREVILLE - ROYAL PARK (DAILY)

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
2-Jan-95	3-Jan-95	1	176	5.5	4.58	0.0005	0.0024	0.016	0.122	0.007	0.002	0.000	0.002	0.000	0.004	0.001
12-Jan-95	13-Jan-95	1	40	1.2	4.13	0.0004	0.0009	0.006	0.050	0.001	0.001	0.000	0.001	0.000	0.001	0.000
13-Jan-95	14-Jan-95	1	14	0.4	3.94	0.0004	0.0006	0.010	0.021	0.002	0.001	0.000	0.001	0.000	0.000	0.000
18-Jan-95	19-Jan-95	1	7	0.2	4.38	a	a	a	a	a	a	a	a	a	a	a
3-Feb-95	4-Feb-95	1	68	2.1	4.8	0.0005	0.0005	0.019	0.010	0.004	0.001	0.000	0.001	0.000	0.004	0.001
14-Feb-95	15-Feb-95	1	6	0.2	4.74	a	a	a	a	a	a	a	a	a	a	a
15-Feb-95	16-Feb-95	1	66	2.1	4.22	0.0006	0.0013	0.004	0.073	0.003	0.001	0.000	0.001	0.000	0.002	0.000
17-Feb-95	18-Feb-95	1	58	1.8	4.3	0.0004	0.0008	0.003	0.047	0.001	0.000	0.000	0.001	0.000	0.002	0.000
18-Feb-95	19-Feb-95	1	5	0.2	a	a	a	a	a	a	a	a	a	a	a	a
20-Feb-95	21-Feb-95	1	162	5.1	4.42	0.0016	0.0025	0.044	0.088	0.010	0.001	0.000	0.003	0.001	0.006	0.001
21-Feb-95	22-Feb-95	1	468	14.6	4.44	0.0057	0.0067	0.193	0.127	0.028	0.003	0.000	0.003	0.002	0.013	0.002
24-Feb-95	25-Feb-95	1	142	4.4	5.05	0.0005	0.0010	0.019	0.035	0.008	0.000	0.000	0.001	0.001	0.007	0.001
3-Mar-95	4-Mar-95	1	26	0.8	4.73	0.0001	0.0001	0.002	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000
9-Mar-95	10-Mar-95	1	32	1.0	5.85	0.0002	0.0001	0.007	0.012	0.005	0.000	0.000	0.001	0.000	0.008	0.001
15-Mar-95	16-Mar-95	1	165	5.1	5.22	0.0020	0.0031	0.044	0.053	0.036	0.002	0.000	0.001	0.000	0.011	0.002
20-Mar-95	21-Mar-95	1	78	2.4	6.34	0.0013	0.0013	0.034	0.041	0.027	0.002	0.000	0.002	0.001	0.026	0.003
24-Mar-95	25-Mar-95	1	159	5.0	6.32	0.0020	0.0019	0.062	0.083	0.045	0.002	0.000	0.005	0.002	0.050	0.008
2-Apr-95	3-Apr-95	1	29	0.9	6.62	0.0006	0.0003	0.018	0.005	0.011	0.001	0.003	0.001	0.002	0.010	0.002
4-Apr-95	5-Apr-95	1	21	0.7	5.98	0.0006	0.0011	0.027	0.020	0.013	0.001	0.000	0.001	0.000	0.007	0.002
11-Apr-95	12-Apr-95	1	103	3.2	6.45	0.0028	0.0043	0.090	0.069	0.055	0.001	0.000	0.001	0.001	0.027	0.004
16-Apr-95	17-Apr-95	1	7	0.2	6.85	a	a	a	a	a	a	a	a	a	a	a
21-Apr-95	22-Apr-95	1	34	1.1	4.87	0.0006	0.0010	0.031	0.019	0.010	0.001	0.000	0.001	0.001	0.008	0.002
22-Apr-95	23-Apr-95	1	22	0.7	6.1	-0.0001	0.0002	0.036	0.013	0.000	0.001	0.000	0.001	0.001	0.012	0.002
23-Apr-95	24-Apr-95	1	16	0.5	4.35	0.0002	-0.0006	0.000	0.000	0.000	0.002	0.000	0.001	0.001	0.008	0.002
24-Apr-95	25-Apr-95	1	304	9.5	6.07	0.0041	0.0051	0.103	0.063	0.075	0.000	0.000	0.002	0.003	0.035	0.005
25-Apr-95	26-Apr-95	1	6	0.2	6.66	a	a	a	a	a	a	a	a	a	a	a
27-Apr-95	28-Apr-95	1	22	0.7	5.97	0.0002	0.0000	0.002	0.003	0.003	0.000	0.000	0.000	0.000	0.004	0.001
29-Apr-95	30-Apr-95	1	57	1.8	6.51	0.0007	0.0003	0.021	0.013	0.013	0.001	0.000	0.001	0.001	0.017	0.003
30-Apr-95	1-May-95	1	182	5.7	6.84	0.0052	0.0050	0.119	0.077	0.095	0.003	0.000	0.003	0.004	0.059	0.011
6-May-95	7-May-95	1	310	9.7	6.49	0.0043	0.0035	0.107	0.155	0.095	0.005	0.000	0.005	0.004	0.101	0.016
7-May-95	8-May-95	1	176	5.5	6.59	0.0049	0.0056	0.118	0.066	0.088	0.002	0.000	0.004	0.004	0.044	0.006
14-May-95	15-May-95	1	703	21.9	5.56	0.0026	-0.0003	0.141	0.103	0.050	0.005	0.000	0.007	0.005	0.124	0.017
17-May-95	18-May-95	1	166	5.2	6.43	0.0033	0.0031	0.081	0.055	0.061	0.002	0.000	0.003	0.004	0.046	0.005
19-May-95	20-May-95	1	147	4.6	6.63	0.0030	0.0018	0.120	0.031	0.052	0.002	0.000	0.002	0.002	0.066	0.009

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

VEGREVILLE - ROYAL PARK (DAILY) - continued

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
24-May-95	25-May-95	1	67	2.1	6.21	0.0004	0.0002	0.024	0.036	0.013	0.001	0.000	0.001	0.001	0.026	0.003
31-May-95	1-Jun-95	1	21	0.7	5.67	0.0003	0.0004	0.029	0.021	0.008	0.001	0.000	0.001	0.001	0.016	0.002
3-Jun-95	4-Jun-95	1	116	3.6	6.53	0.0021	0.0016	0.078	0.101	0.050	0.004	0.000	0.004	0.004	0.068	0.012
5-Jun-95	6-Jun-95	1	45	1.4	5.15	0.0011	0.0019	0.040	0.032	0.022	0.001	0.000	0.000	0.001	0.010	0.002
16-Jun-95	17-Jun-95	1	50	1.6	4.86	0.0003	0.0009	0.019	0.045	0.010	0.003	0.000	0.005	0.002	0.012	0.002
17-Jun-95	18-Jun-95	1	109	3.4	4.96	0.0020	0.0034	0.083	0.064	0.036	0.002	0.000	0.012	0.006	0.019	0.003
18-Jun-95	19-Jun-95	1	819	25.6	5.92	0.0052	0.0058	0.157	0.187	0.110	0.005	0.000	0.003	0.007	0.102	0.015
19-Jun-95	20-Jun-95	1	1286	40.1	5.1	0.0077	0.0146	0.330	0.299	0.124	0.007	0.000	0.005	0.004	0.064	0.008
20-Jun-95	21-Jun-95	1	306	9.5	6.45	0.0027	0.0032	0.034	0.057	0.052	0.002	0.000	0.001	0.001	0.022	0.002
25-Jun-95	26-Jun-95	1	332	10.4	4.91	0.0029	0.0048	0.122	0.125	0.047	0.003	0.000	0.001	0.007	0.034	0.006
29-Jun-95	30-Jun-95	1	38	1.2	5.75	0.0007	0.0005	0.035	0.021	0.014	0.001	0.000	0.001	0.001	0.021	0.003
30-Jun-95	1-Jul-95	1	253	7.9	4.89	0.0025	0.0031	0.105	0.076	0.037	0.003	0.000	0.001	0.003	0.036	0.005
2-Jul-95	3-Jul-95	1	450	14.0	6.07	0.0040	0.0058	0.097	0.119	0.082	0.004	0.000	0.001	0.006	0.041	0.007
4-Jul-95	5-Jul-95	1	237	7.4	4.91	0.0023	0.0036	0.082	0.078	0.035	0.003	0.000	0.002	0.005	0.018	0.003
9-Jul-95	10-Jul-95	1	46	1.4	4.66	0.0011	0.0021	0.055	0.049	0.020	0.003	0.000	0.002	0.002	0.014	0.003
10-Jul-95	11-Jul-95	1	139	4.3	4.87	0.0009	0.0012	0.030	0.042	0.012	0.002	0.000	0.002	0.002	0.012	0.002
11-Jul-95	12-Jul-95	1	209	6.5	6.21	0.0023	0.0014	0.064	0.094	0.052	0.004	0.000	0.001	0.003	0.067	0.010
Annual		**51**	**8500**	**265**	**5.06**	**0.0874**	**0.1080**	**2.862**	**2.904**	**1.522**	**0.093**	**0.003**	**0.095**	**0.097**	**1.286**	**0.195**

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a insufficient sample for analysis   b data not available   c sample contaminated with dirt, plant or insect material   d catch of collector not available

e less than 75% of data available   * precipitation depth calculated from catch of collector

VEGREVILLE - ROYAL PARK (WEEKLY)

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
7-Jan-95	14-Jan-95	7	224	7.0	4.39	0.0013	0.0038	0.036	0.191	0.010	0.004	0.000	0.003	0.002	0.007	0.002
14-Jan-95	21-Jan-95	7	8	0.2	3.9	a	a	a	a	a	a	a	a	a	a	a
28-Jan-95	4-Feb-95	7	64	2.0	4.69	0.0008	0.0012	0.032	0.018	0.010	0.001	0.000	0.001	0.000	0.004	0.001
11-Feb-95	18-Feb-95	7	138	4.3	4.23	0.0014	0.0025	0.014	0.133	0.006	0.001	0.000	0.001	0.000	0.003	0.001
18-Feb-95	25-Feb-95	7	748	23.3	4.55	0.0068	0.0110	0.258	0.260	0.050	0.005	0.000	0.005	0.003	0.020	0.003
4-Mar-95	11-Mar-95	7	47	1.5	5.09	0.0002	0.0004	0.010	0.017	0.005	0.001	0.000	0.001	0.000	0.005	0.001
11-Mar-95	18-Mar-95	7	20	0.6	4.72	0.0004	0.0005	0.006	0.008	0.006	0.000	0.000	0.000	0.000	0.001	0.000
18-Mar-95	25-Mar-95	7	81	2.5	6.36	0.0012	0.0014	0.036	0.045	0.027	0.002	0.000	0.002	0.001	0.025	0.004
1-Apr-95	8-Apr-95	7	59	1.8	6.29	0.0012	0.0016	0.055	0.035	0.026	0.002	0.000	0.001	0.001	0.024	0.005
8-Apr-95	15-Apr-95	7	103	3.2	6.23	0.0028	0.0047	0.105	0.074	0.057	0.001	0.000	0.002	0.001	0.030	0.005
15-Apr-95	22-Apr-95	7	43	1.3	4.5	-0.0002	0.0018	0.080	0.058	0.000	0.001	0.000	0.001	0.000	0.011	0.002
22-Apr-95	29-Apr-95	7	370	11.5	6.13	0.0064	0.0075	0.236	0.153	0.126	0.007	0.000	0.005	0.006	0.111	0.015
29-Apr-95	6-May-95	7	233	7.3	6.68	0.0058	0.0053	0.143	0.094	0.108	0.004	0.000	0.004	0.005	0.078	0.014
6-May-95	13-May-95	7	484	15.1	6.47	0.0094	0.0098	0.234	0.228	0.187	0.007	0.000	0.003	0.007	0.145	0.021
13-May-95	20-May-95	7	922	28.8	6.22	c	c	c	c	c	c	c	c	c	c	c
20-May-95	27-May-95	7	66	2.1	5.74	0.0004	0.0003	0.027	0.039	0.012	0.001	0.000	0.001	0.001	0.025	0.003
27-May-95	3-Jun-95	7	14	0.4	5.6	0.0002	0.0003	0.033	0.024	0.007	0.001	0.000	0.001	0.003	0.017	0.003
3-Jun-95	10-Jun-95	7	152	4.7	6.32	0.0027	0.0033	0.118	0.139	0.067	0.005	0.000	0.005	0.004	0.078	0.013
10-Jun-95	17-Jun-95	7	50	1.6	6.37	-0.0001	0.0000	0.041	0.076	0.012	0.006	0.000	0.005	0.003	0.043	0.007
17-Jun-95	24-Jun-95	7	2477	77.3	5.82	c	c	c	c	c	c	c	c	c	c	c
24-Jun-95	1-Jul-95	7	942	29.4	4.94	0.0082	0.0103	0.380	0.334	0.135	0.011	0.000	0.068	0.040	0.150	0.023
1-Jul-95	8-Jul-95	7	664	20.7	5.95	0.0052	0.0069	0.180	0.193	0.112	0.005	0.000	0.003	0.010	0.094	0.015
15-Jul-95	21-Jul-95	6	597	18.6	5.13	0.0038	0.0034	0.079	0.060	0.048	0.004	0.000	0.001	0.003	0.030	0.004
21-Jul-95	28-Jul-95	7	1006	31.4	5.03	0.0105	0.0169	0.410	0.236	0.160	0.007	0.000	0.002	0.007	0.068	0.009
28-Jul-95	4-Aug-95	7	869	27.1	5.26	0.0047	0.0071	0.194	0.152	0.078	0.008	0.000	0.003	0.004	0.058	0.008
4-Aug-95	11-Aug-95	7	2515	78.5	5.63	0.0065	0.0087	0.203	0.183	0.105	0.011	0.000	0.028	0.006	0.067	0.009
11-Aug-95	18-Aug-95	7	148	4.6	5.27	0.0009	0.0014	0.029	0.035	0.017	0.002	0.000	0.001	0.001	0.011	0.002
18-Aug-95	25-Aug-95	7	361	11.3	6.05	0.0043	0.0054	0.137	0.128	0.088	0.006	0.000	0.001	0.006	0.062	0.015
25-Aug-95	1-Sep-95	7	411	12.8	5.34	0.0025	0.0041	0.122	0.113	0.049	0.005	0.000	0.004	0.004	0.046	0.007
15-Sep-95	22-Sep-95	7	17	0.5	6.13	-0.0003	0.0000	0.000	0.031	0.000	0.001	0.000	0.001	0.001	0.007	0.001
29-Sep-95	6-Oct-95	7	9	0.3	6.95	0.0000	0.0002	0.006	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.000
13-Oct-95	20-Oct-95	7	22	0.7	7	0.0004	0.0016	0.035	0.031	0.012	0.001	0.001	0.001	0.001	0.004	0.001
20-Oct-95	27-Oct-95	7	8	0.2	6.88	a	a	a	a	a	a	a	a	a	a	a
27-Oct-95	3-Nov-95	7	13	0.4	7.13	0.0000	0.0004	0.014	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Nov-95	10-Nov-95	7	72	2.2	6.52	0.0006	0.0006	0.016	0.020	0.013	0.001	0.000	0.000	0.000	0.012	0.002
16-Nov-95	22-Nov-95	6	11	0.3	6.62	a	a	a	a	a	a	a	a	a	a	a
22-Nov-95	1-Dec-95	9	80	2.5	6.41	0.0000	0.0011	0.028	0.052	0.009	0.001	0.000	0.001	0.001	0.012	0.002
27-Dec-95	3-Jan-96	7	10	0.3	a	a	a	a	a	a	a	a	a	a	a	a
Annual		**266**	**14058**	**439**	**5.38**	**0.0880**	**0.1235**	**3.296**	**3.167**	**1.541**	**0.114**	**0.001**	**0.154**	**0.122**	**1.249**	**0.196**

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a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

VEGREVILLE - ROYAL PARK (MONTHLY)

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
31-Dec-94	1-Feb-95	32	82	2.6	4.62	0.0000	0.0017	0.021	0.085	0.005	0.002	0.000	0.001	0.002	0.006	0.001
1-Feb-95	1-Mar-95	28	320	10.0	4.66	0.0031	0.0078	0.166	0.203	0.050	0.008	0.000	0.006	0.004	0.024	0.005
1-Mar-95	31-Mar-95	30	144	4.5	5.48	0.0026	0.0050	0.081	0.105	0.058	0.005	0.000	0.004	0.001	0.024	0.005
31-Mar-95	28-Apr-95	28	155	4.8	6.03	0.0048	0.0090	0.199	0.131	0.098	0.004	0.000	0.003	0.004	0.040	0.007
28-Apr-95	31-May-95	33	574	17.9	6.37	0.0113	0.0113	0.311	0.231	0.217	0.009	0.000	0.006	0.008	0.173	0.026
31-May-95	30-Jun-95	30	1213	37.9	6.08	c	c	c	c	c	c	c	c	c	c	c
8-Jul-95	21-Jul-95	13	996	31.1	5.29	0.0090	0.0114	0.217	0.248	0.160	0.011	0.000	0.008	0.009	0.091	0.014
Annual		**194**	**3484**	**109**	**5.34**	**0.0308**	**0.0462**	**0.994**	**1.004**	**0.588**	**0.039**	**0.000**	**0.028**	**0.028**	**0.358**	**0.057**

a insufficient sample for analysis
b data not available
c sample contaminated with dirt, plant or insect material
d catch of collector not available
e less than 75% of data available
* precipitation depth calculated from catch of collector

SUFFIELD

Sample Start Date	Sample End Date	Sample Period (days)	Catch of Collector (ml)	Precip. Depth* (mm)	pH pH Units	Effective Acidity (H+ kg/ha)	Potential Acid Input (H+ kg/ha)	Sulphate (kg/ha)	Nitrate (kg/ha)	Ammonium (kg/ha)	Chloride (kg/ha)	Phosphate (kg/ha)	Sodium (kg/ha)	Potassium (kg/ha)	Calcium (kg/ha)	Magnesium (kg/ha)
11-Jan-95	18-Jan-95	7	119	3.7	5.33	0.0001	0.0001	0.016	0.032	0.005	0.008	0.000	0.007	0.003	0.014	0.003
1-Feb-95	28-Feb-95	27	28	0.9	5.44	0.0000	0.0010	0.017	0.050	0.009	0.003	0.001	0.002	0.001	0.009	0.002
22-Mar-95	29-Mar-95	7	157	4.9	6.03	0.0011	0.0006	0.026	0.037	0.024	0.002	0.000	0.002	0.001	0.029	0.005
29-Mar-95	5-Apr-95	7	196	6.1	5.81	0.0017	0.0017	0.113	0.070	0.037	0.002	0.000	0.006	0.003	0.058	0.011
5-Apr-95	12-Apr-95	7	63	2.0	6.4	0.0009	0.0007	0.049	0.025	0.018	0.001	0.000	0.005	0.001	0.025	0.006
12-Apr-95	19-Apr-95	7	91	2.8	6.94	0.0021	0.0012	0.037	0.044	0.040	0.002	0.000	0.002	0.002	0.039	0.007
3-May-95	10-May-95	7	458	14.3	5.85	0.0048	0.0080	0.223	0.321	0.130	0.008	0.000	0.007	0.006	0.136	0.025
10-May-95	17-May-95	7	84	2.6	6.62	0.0014	0.0017	0.052	0.084	0.037	0.021	0.000	0.013	0.011	0.038	0.009
17-May-95	24-May-95	7	455	14.2	5.92	0.0025	0.0007	0.151	0.134	0.061	0.010	0.000	0.010	0.009	0.122	0.021
24-May-95	8-Jun-95	15	169	5.3	6.84	0.0026	0.0022	0.104	0.210	0.077	0.007	0.006	0.007	0.010	0.112	0.022
8-Jun-95	21-Jun-95	13	596	18.6	6.61	0.0062	0.0039	0.196	0.415	0.171	0.032	0.000	0.024	0.013	0.255	0.040
21-Jun-95	28-Jun-95	7	272	8.5	6.98	0.0093	0.0080	0.140	0.142	0.171	0.006	0.000	0.010	0.008	0.102	0.016
28-Jun-95	5-Jul-95	7	978	30.5	6.04	0.0057	0.0087	0.171	0.283	0.136	0.020	0.000	0.022	0.014	0.098	0.021
5-Jul-95	19-Jul-95	14	952	29.7	4.98	0.0042	0.0077	0.309	0.316	0.073	0.010	0.000	0.010	0.009	0.113	0.025
19-Jul-95	2-Aug-95	14	477	14.9	6.26	0.0016	-0.0012	0.176	0.131	0.046	0.004	0.000	0.009	0.005	0.117	0.043
2-Aug-95	9-Aug-95	7	276	8.6	5.74	0.0024	0.0035	0.118	0.080	0.049	0.013	0.000	0.020	0.013	0.036	0.010
9-Aug-95	23-Aug-95	14	318	9.9	5.42	0.0003	0.0000	0.021	0.057	0.009	0.005	0.000	0.004	0.002	0.025	0.007
23-Aug-95	30-Aug-95	7	396	12.4	6.35	0.0012	-0.0009	0.208	0.172	0.048	0.006	0.000	0.018	0.008	0.140	0.042
30-Aug-95	6-Sep-95	7	466	14.5	5.2	0.0018	0.0037	0.111	0.163	0.043	0.011	0.000	0.012	0.007	0.051	0.011
6-Sep-95	20-Sep-95	14	112	3.5	5.13	0.0007	0.0014	0.039	0.047	0.015	0.001	0.001	0.002	0.002	0.014	0.003
22-Sep-95	4-Oct-95	12	427	13.3	5.3	0.0022	0.0033	0.117	0.093	0.041	0.005	0.000	0.003	0.002	0.045	0.008
4-Oct-95	18-Oct-95	14	89	2.8	5.54	0.0006	0.0010	0.035	0.031	0.014	0.002	0.000	0.003	0.001	0.015	0.003
18-Oct-95	25-Oct-95	7	62	1.9	5.25	0.0002	0.0003	0.015	0.011	0.004	0.003	0.000	0.002	0.001	0.006	0.001
25-Oct-95	17-Nov-95	23	263	8.2	6.41	0.0001	-0.0017	0.104	0.100	0.018	0.004	0.000	0.017	0.003	0.099	0.018
17-Nov-95	29-Nov-95	12	144	4.5	6.1	0.0002	-0.0005	0.029	0.030	0.008	0.012	0.000	0.012	0.008	0.027	0.006
29-Nov-95	10-Jan-96	42	420	13.1	5.29	0.0002	0.0021	0.056	0.148	0.018	0.023	0.000	0.023	0.007	0.038	0.005
Annual		**312**	**8068**	**252**	**5.52**	**0.0542**	**0.0568**	**2.634**	**3.227**	**1.302**	**0.222**	**0.007**	**0.251**	**0.150**	**1.762**	**0.371**

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a insufficient sample for analysis b data not available c sample contaminated with dirt, plant or insect material d catch of collector not available
e less than 75% of data available * precipitation depth calculated from catch of collector

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